

## Review Article

# A review on the role of postpartum homecare program in identification, managing and preventing common complications

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## ABSTRACT

The postpartum period is a crucial phase for mothers, requiring close monitoring and care to address physical, emotional, and psychological challenges. Comprehensive support is provided to new mothers through postpartum homecare programs, which prioritise the prevention and management of problems such as gestational diabetes, hypertension, and postpartum depression. These programs ensure timely interventions for conditions like infections, excessive bleeding, and mental health concerns, which are common during this time. Homecare visits provide personalized care, with healthcare professionals offering guidance on breastfeeding, infant care, and self-care practices. The program's emphasis on maternal well-being reduces hospital readmissions and ensures early detection of serious conditions like postpartum hemorrhage and hypertension, promoting quicker recovery. Moreover, postpartum homecare enhances emotional support, helping new mothers cope with stress, anxiety, and fatigue. By fostering a strong mother-infant bond and addressing the unique needs of each patient, these programs contribute to better long-term health outcomes for both mother and baby, empowering women to confidently navigate the postpartum journey.

**Keywords:** Postpartum care, Maternal health, Postpartum depression, Breastfeeding support, Infant care, Emotional support

## INTRODUCTION

Two conditions that may arise during pregnancy and have lasting effects on health are gestational diabetes (GDM)

and hypertensive disorders of pregnancy (HDP). GDM, affecting 14% of pregnancies worldwide, is marked by elevated blood sugar levels during pregnancy and raises the likelihood of developing type 2 diabetes by seven to

ten times within a decade.<sup>1,2</sup> HDP, which comprises chronic hypertension, pre-eclampsia, eclampsia, and gestational hypertension, affects approximately 116 out of every 100,000 women who are of reproductive age. Rates are higher in countries with low incomes.<sup>3</sup> Long-term renal, cerebrovascular, and cardiovascular disorders are linked to these problems. Postpartum care should include blood pressure monitoring, testing for persistent hypertension, and metabolic screening within 3-6 months, with ongoing assessments.<sup>4</sup>

The weeks following childbirth are a crucial period for both the mother and her infant, establishing the foundation for their long-term health and well-being.<sup>5</sup>

The postpartum period, which extends from one hour after delivery to 42 days, is a crucial time for maternal health.<sup>6</sup> During this period, women undergo a range of physical, mental, and emotional changes that can disrupt their daily routines.<sup>7</sup> Physical issues like exhaustion, haemorrhoids, and constipation; mental and emotional difficulties like anxiety, stress, and depression; and practical challenges like incontinence and breastfeeding are examples of common complications. These changes significantly impact the quality of life for mothers and, consequently, their children's well-being.<sup>8</sup>

To treat these issues and assist mothers in balancing their new responsibilities, postpartum care is crucial. First-time mothers frequently depend on the assistance of friends, family, and medical professionals since they may feel unprepared.<sup>9</sup> Effective postpartum care can help prevent unwanted outcomes and support mothers in adapting to their new roles.<sup>10</sup> Home visits by healthcare professionals are particularly beneficial as they provide immediate, accessible support and education during the early days postpartum when travel can be challenging.<sup>11</sup> Postpartum home care involves measures to prevent complications and enhance maternal health, as well as to strengthen the mother-infant bond. This service enables mothers to better manage their own well-being and care for their newborns, potentially reducing mental and psychological issues. It is indicated that women who receive midwifery care at home report higher satisfaction with the services compared to those receiving care in a hospital setting.<sup>12</sup>

Poorer peripartum mental health is associated with both newly diagnosed disorders and pre-existing chronic conditions during pregnancy. Mental health issues and postpartum depression symptoms are more common in women with GDM and pre-eclampsia.<sup>3</sup> Postpartum evaluations are therefore essential for peripartum mental health screening and assistance, underscoring the importance of timely and comprehensive postpartum care.

## LITERATURE SEARCH

This study is based on a comprehensive literature search conducted on 3 September 2024, in the Medline and Cochrane databases, utilizing the medical subjects

heading (MeSH) and a combination of all available related terms, according to the database. To prevent missing any research, a manual search for publications was conducted through Google Scholar, using the reference lists of the previously listed papers as a starting point. We looked for valuable information in papers that discussed the role of postpartum homecare program in identification, managing and preventing common complications. There were no restrictions on date, language, participant age, or type of publication.

## DISCUSSION

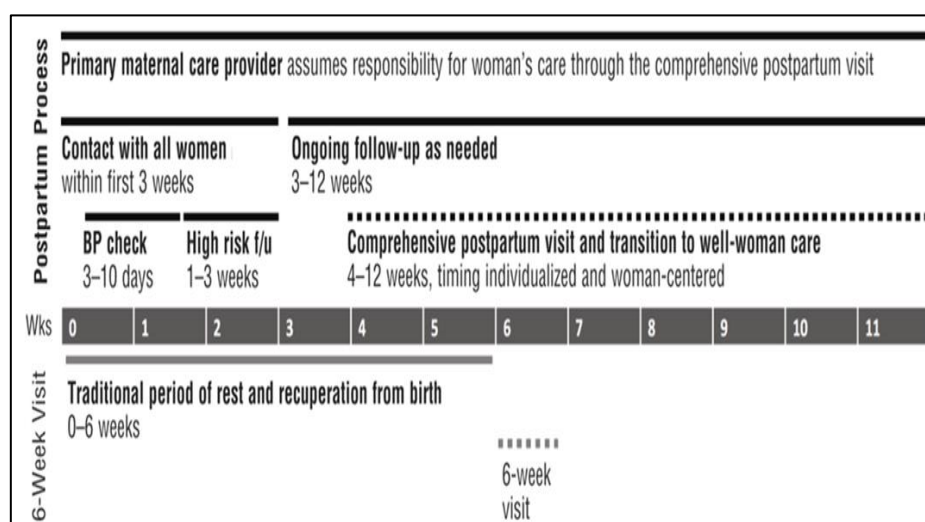
To promote the health of mothers and newborns, postpartum care should be viewed as an ongoing process rather than a one-time event, with resources and support catered to each woman's unique needs. Qualitative research has shown that while prenatal care places a strong emphasis on maternal health, postpartum care is often limited and delayed.<sup>13</sup>

Instead of following the conventional "6-week check" schedule, the American college of obstetricians and gynecologists recommends tailoring the postpartum visit to the mother's specific needs. Postpartum care should ideally start with an initial assessment within the first three weeks after delivery, conducted either in person or by phone to address early postpartum issues. Comprehensive postpartum care should follow, culminating in a full well-woman visit no later than 12 weeks after birth (Figure 1).<sup>14</sup>

Increasing postpartum visit attendance is a developmental goal of healthy people 2030. Despite the importance of optimal postpartum care for improving women's overall health and well-being, inadequate care remains common. Less than half of the women who attended a postpartum visit thought they received enough information about healthy diet, the value of exercise, birth spacing, postpartum depression, and changes in sexual response and emotions.<sup>15</sup>

### Planning for the reproduction process

Starting with prenatal care, the woman should discuss her reproductive life plans, including whether and when she intends to have more children, with her obstetrician-gynecologist or other obstetric care provider.<sup>16</sup> Women should be counselled against taking interpregnancy breaks of less than six months and should be made aware of the advantages and disadvantages of getting pregnant again in 18 months.<sup>17</sup> The success rate of vaginal birth after caesarean section (VBAC) might potentially be decreased by short interpregnancy periods. A woman's plans for future pregnancies offer a foundation for discussing contraception alternatives and making decisions together.<sup>18</sup> A central aspect of shared decision-making is the collaboration between the patient, who is an expert in her own experiences and values, and the healthcare provider, who is an expert in clinical knowledge and evidence.<sup>19</sup>



**Figure 1: Proposed paradigm shifts for postpartum visits.**

The American college of obstetricians and gynecologists' presidential task force on redefining the postpartum visit and the committee on obstetric practice propose shifting the paradigm for postpartum care from a single 6-week visit (bottom) to a postpartum process (top). Abbreviations: BP, blood pressure; f/u, follow-up.<sup>14</sup>

From the start of prenatal care, the obstetrician-gynecologist or other obstetric care provider should work closely with the woman to create a comprehensive postpartum care plan. This plan should include a care team made up of the woman's and her child's healthcare providers, along with friends and family members who will provide emotional and practical support after delivery.<sup>16</sup>

The postpartum care plan should be reviewed and updated after childbirth. Many women are unsure of whom to contact when they experience postpartum issues.<sup>20</sup> It is advised that the care plan contain written instructions for follow-up postpartum care as well as contact details. A primary obstetrician-gynecologist or other healthcare professional should supervise a woman's postpartum care, just as a healthcare professional or practice manages her care during her pregnancy. Effective communication among the woman, her postpartum care team, and the infant's healthcare provider should be directed primarily through this designated contact person or practice. If a prolonged infant hospitalization away from the woman's residence is expected after discharge, a local obstetrician-gynecologist or other healthcare provider should be assigned as the point of contact. This approach facilitates seamless care coordination, regardless of whether the delivery took place at a local hospital.<sup>14</sup>

More than half of maternal deaths due to pregnancy happen after delivery, and a considerable amount of morbidity develops in the initial postpartum phase.<sup>21</sup> According to some experts, women who have hypertensive problems during pregnancy should have their blood pressure checked 7-10 days after giving birth, and those who have severe hypertension should see a doctor within 72 hours. Follow-up care is indicated for 3-

5 days after that.<sup>14</sup> This is important since half of postpartum strokes occur within ten days of discharge.<sup>22</sup> In-person follow-ups are particularly important for women who are at a higher risk of complications, such as postpartum depression, infections from caesarean or perineal wounds, issues with lactation, or chronic conditions like seizure disorders that require adjustments to postpartum medication regimens.<sup>23</sup> Women with complex medical problems may require multiple visits to support recovery from childbirth. Even women without specific risk factors commonly face issues like heavy bleeding, pain, fatigue, and urinary incontinence.<sup>15</sup> According to the world health organization's postnatal care standards, all mother-infant pairs should have routine examinations three days, one and a half weeks, and six weeks after giving birth.<sup>14</sup>

To facilitate the early detection and treatment of postpartum depression, the national institute for health and care excellence recommends screening all women for the resolution of the baby blues between 10 and 14 days postpartum.<sup>14</sup> To support women in achieving their breastfeeding objectives, early interaction during the first few weeks after giving birth is crucial. Among women who weaned earlier than planned, 20% had given up breastfeeding by the time regular visits take place, at six weeks postpartum.<sup>24</sup>

### Strategies to improve postpartum attendance

Several strategies have been tested in various settings to enhance postpartum attendance (Table 1) summarizes these strategies to increase postpartum attendance.<sup>3</sup> The effectiveness of patient education, home visits, and incentives in improving attendance has been inconsistent. There is still a lack of research on the precise application of technology in the postpartum context to raise attendance rates, especially in settings with higher

incomes.<sup>3</sup> Initial results from qualitative interviews with people whose postpartum healthcare practitioner sent the text messages suggested that this strategy was well-received.<sup>25</sup>

Numerous programs incorporate two or more of these techniques into their frameworks for postpartum care. For instance, health beyond pregnancy introduced text and video inspirational messages, employed text-based follow-up reminders for postpartum care, and offered a financial incentive for participation. This multi-strategy

approach could help broaden the reach of individual programs; however, there is not enough evidence to determine which combinations are most effective in increasing attendance rates.

Evaluating the feasibility and economic impact of these combined approaches is crucial, but data on this aspect remains limited.<sup>3</sup>

**Table 1: Strategies for enhancing postpartum engagement.<sup>3</sup>**

Strategy	Detailed description
<b>Administrative assistance</b>	Scheduling postpartum appointments before discharge.
<b>Patient education</b>	Providing written pamphlets, online resources with guideline summaries, postpartum visit guides, and antepartum group or individual education sessions.
<b>Home visit</b>	Home visits conducted by a nurse, midwife, or doula.
<b>Patient incentives</b>	Offering coupons or infant-related items to encourage attendance at appointments.
<b>Patient care coordinator</b>	A healthcare professional responsible for scheduling appointments and helping reschedule tests when necessary.
<b>Patient navigator</b>	Trained personnel who assist with navigating the healthcare system, often using culturally specific methods. They help arrange interpreters, transportation, and complete forms.
<b>Reminder system</b>	Sending reminders via letter, email, text, telephone, or other methods to remind patients or providers about appointments or tests.
<b>Specialist postpartum clinic</b>	A dedicated clinic providing postpartum care with access to a multidisciplinary team of care providers.
<b>Telehealth</b>	Utilizing text messages, mobile apps, or web-based technology, often in conjunction with other strategies like education or reminder systems.

### ***The shift from comprehensive postpartum visit to well-woman care***

#### ***Visiting time***

The precise postpartum visit has historically been planned for four to six weeks following delivery, which corresponds with cultural customs that dictate women and their newborns recover for 40 days.<sup>26</sup> The entire postpartum visit should take place at a time that suits the woman's needs and no later than 12 weeks following birth. This schedule should account for any changes to the insurance policy that are expected after delivery. At every postpartum appointment, obstetricians, and gynaecologists as well as other obstetric care providers should determine whether additional visits are necessary and plan for them. Comprehensive postpartum visits do not signify that everything is "all clear." Rather, they are medical appointments. Obstetrician-gynecologists and other obstetric care providers must ensure that women, their families, and their employers understand that completing the comprehensive postpartum visit does not negate the need for ongoing recovery and support through six weeks postpartum and beyond.<sup>14</sup>

#### ***Visit components***

A proper postpartum visit should include a detailed assessment of the patient's social, mental, and physical health. Key areas to evaluate include mental and

emotional well-being, newborn care and feeding, sexuality, contraception, pregnancy spacing, sleep and exhaustion, physical recovery after delivery, management of chronic conditions, and overall health maintenance.<sup>14</sup> Reviewing and documenting relevant information in the medical record is a crucial step. Between 3% and 16% of women experience postpartum posttraumatic stress disorder, often triggered by a traumatic birth experience.<sup>27</sup> Healthcare providers must recognize that trauma is a subjective experience, and even if both the mother and baby are physically healthy, the woman may still perceive the birth as traumatic.

Additionally, providers should assess the risks for future pregnancies, such as the potential use of aspirin to reduce preeclampsia risk or 17 $\alpha$ -hydroxyprogesterone caproate to lower the risk of recurrent preterm delivery. Reports on placental pathology should also be reviewed and shared with the patient. Managing health during the interpregnancy period, including controlling diabetes and achieving optimal weight, is essential for improving future pregnancy outcomes.<sup>28,29</sup>

### ***Postpartum cardiovascular risk and health management***

As a natural stress test that detects women who are at-risk for cardiovascular disease, pregnancy can identify cardiovascular risk factors. However, these abnormalities frequently resolve postpartum, and the increased risk of cardiovascular disease is not necessarily disclosed. An



increased risk of arteriosclerotic cardiovascular disease (ASCVD) has been associated with adverse pregnancy outcomes, including preterm birth, GDM, gestational hypertension, preeclampsia, and eclampsia but are not currently measured by ASCVD risk assessment instruments.<sup>30</sup> Women who encounter these issues should receive counselling regarding their elevated lifetime risk of cardiometabolic illness and have their ASCVD risk evaluated, considering the social determinants of health.<sup>14,31</sup> Timely glucose screening and thorough documentation of pregnancy-related issues are essential for effective postpartum care, particularly for mothers with GDM. Additionally, women with chronic health conditions must receive guidance on the importance of regular follow-up to ensure continuous and coordinated care. It is important to assess whether medications, such as antiepileptics and psychotropics, are compatible with breastfeeding and postpartum physiology. Follow-up visits with an obstetrician-gynecologist or other healthcare provider are crucial for women who have suffered premature birth, stillbirth, or neonatal death. They can offer emotional support, bereavement counselling, and support group referrals in addition to reviewing laboratory and pathology findings, talking about recurrence risk, and scheduling future pregnancies.<sup>14</sup>

### **Future directions**

Future directions for postpartum homecare programs should focus on integrating technology-driven solutions such as telehealth and mobile applications to increase accessibility and follow-up care. These innovations can enhance patient engagement, improve early identification of complications, and offer real-time support for both physical and mental health issues. Expanding interdisciplinary care teams that include midwives, nurses, and mental health professionals is another avenue to improve maternal outcomes. Additionally, research should investigate the long-term impact of postpartum homecare on preventing chronic conditions like hypertension and type 2 diabetes. Finally, tailoring care to individual needs through personalized health education and culturally sensitive approaches can further reduce health disparities and improve satisfaction among new mothers.

### **CONCLUSION**

Postpartum homecare programs are vital for ensuring maternal and infant health. They provide personalized support to manage physical, emotional, and psychological challenges. Early interventions reduce complications and hospital readmissions. These programs enhance recovery and promote long-term well-being for mothers and babies.

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