



"Environmental and community barriers to vitamin supplementation among pregnant women in rural areas of India"

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Introduction :

A woman's life revolves around pregnancy, a crucial period that calls for meticulous nutritional awareness as the health of the mother and the growing foetus rely on it. Particularly during pregnancy, a sufficient intake of certain vitamins is very vital for the general health of the mother and the growth of her foetus. Pregnant women in rural parts of India, however, have great difficulty obtaining and following vitamin supplements, which can result in shortages with perhaps major effects on the health of mother or child.

India, especially its rural areas, still suffers high rates of anaemia, malnutrition, and other nutritional shortages during pregnancy. Several times, these interventions in rural regions fall short of their full potential despite several government initiatives meant to improve mother nutrition via supplementing of iron, folic acid, calcium, and other vital vitamins. The many obstacles preventing pregnant women in rural India from fully enjoying the advantages of vitamin supplements—including socioeconomic, cultural, health system-related, and personal elements—are investigated in this paper.

1. Social Economic Obstacles

1.1. Economic Restrain and Poverty

Among the most important obstacles pregnant women in rural India must overcome are financial ones. Poverty directly affects one's access to healthcare and their capacity to pay or give vitamin supplements first priority. Although the government offers free or subsidised vitamin supplements, indirect expenses still prevent many women in rural regions from easily obtaining these treatments. These include travel expenditures, the need to miss work, and opportunity costs related to prenatal care (ANC) visits—where supplements are usually given.

In homes with little means, everyday food necessities usually take first priority, therefore mother health—including the need for supplements—may not be given top attention. Many rural pregnant women work in agricultural or labour-intensive jobs, and their time is usually dedicated to domestic chores or income generating. Under such circumstances, particularly if it entails missing a day's pay, visiting healthcare facilities to get supplements might be seen as a less important activity.

1.2. Literacy and Education Levels

Low compliance with vitamin supplementation is much correlated with low literacy and educational level among rural Indian women. Empowerment of women to make wise choices about their health and the condition of their unborn child depends critically on education. Pregnant women with little or no formal education might not completely appreciate the value of vitamins during pregnancy, how to take them, or the possible effects of vitamin deficits. A major contributing reason to inadequate adherence to supplements programs is ignorance and lack of awareness.

Many times, especially if the material is given in a language or style foreign to pregnant women, the messages given by healthcare professionals on the value of vitamin supplements may not be precisely comprehended by them. Illiteracy reduces a woman's reading and following capacity on supplement packaging, therefore affecting her compliance rates.

2. behavioural and cultural obstacles

2.1. Conventional wisdom and customs

Vitamin supplementation is often severely hampered by cultural beliefs and traditional practices in rural parts of India. Many rural areas follow conventional wisdom on diet and pregnancy that runs counter to current medical guidelines. Some pregnant women, for example, may think that using

contemporary medications or supplements could create problems in pregnancy or delivery, including too much foetal development, which they worry might complicate births.

Furthermore, there are cultural taboos and limitations about certain meals or nutrients during pregnancy, which can include vitamin pills. Sometimes family members or community leaders may counsel against the use of supplements, in favour of local cuisine or traditional treatments. Even if vitamin supplements are easily accessible, these false ideas and worries might deter women from using them.

2.2. Gender roles and authority for making decisions

Women in many rural Indian homes have little control over choices concerning their own health. Cultural conventions can give male family members—such as spouses or fathers-in-law, or elder female relatives like mothers-in-law—decision-making authority. If the family does not give this top priority, pregnant women may not get the required diet or treatment including vitamin supplements.

Moreover, society expectations of women's duties in rural areas usually centre on domestic chores, childbearing, and agricultural labour. Pregnant women may therefore be expected to keep working long hours even as their nutritional demands grow and they may not have the time or chance to give their own health top priority, including attending prenatal care sessions when supplements are supplied.

3. Systemic Obstacles in Healthcare

3.1. Restricted Healthcare Facility Access

Poor infrastructure and the great distances between villages and health centres continue to be major obstacles in rural India's access to healthcare amenities. Many rural communities lack enough medical services, and those that do have often understaffing or inadequate equipment. Particularly for those with limited access to transportation, pregnant women in these locations might have to travel great distances to access healthcare services, which can be a big turnoff.

Moreover, rural healthcare institutions can suffer from regular stockouts of vitamins among other vital drugs and supplements. This discrepancy in supplies implies that pregnant women may not always get the vitamins they need even if they try to attend health centres. Such events might cause irritation and discouragement, hence lowering compliance with supplements regimens.

3.2. Poor Antenatal Care Services

With little time and attention paid to teaching expectant mothers about the need of vitamin supplementation, the quality of prenatal care services in rural regions is often inadequate. Maternal health in rural regions is much enhanced by healthcare professionals, especially Auxiliary Nurse Midwives (ANMs) and Accredited Social Health Activists (ASHAs). These employees may not always provide thorough nutritional and supplement counselling, however, given the heavy patient load and limited resources.

Furthermore, healthcare professionals could not stress the need of ongoing adherence to supplements during pregnancy, which would result in low compliance. Sometimes women get the first dosage of supplements but neglect to follow up with frequent ANC checks, which would lead to different vitamin consumption.

3.3. Insufficient Trained Healthcare Professionals

Lack of qualified healthcare professionals in rural India aggravates the difficulties in offering proper mother care even further. Many rural health centres are low on physicians, nurses, and midwives, which results in hurried appointments and lengthy waiting periods. This helps to avoid pregnant women getting enough counselling on the value of vitamin supplements as well as attention. Overburdened healthcare professionals may not have the opportunity to address specific issues or teach women appropriate supplement usage.

Moreover, the quality of instruction given to rural front-line medical professionals might be insufficient. Sometimes healthcare professionals may not be current in their understanding of vitamin supplementing techniques, which might result in conflicting recommendations or incorrect dosage of supplements.

4. Personal Variables

4.1. Insufficient Understanding and Knowledge

Pregnant women in rural regions have a great obstacle to vitamin supplements: ignorance about the part vitamins play in pregnancy. Many women are not aware of the advantages of taking supplements, including those related to the avoidance of anaemia, birth abnormalities, and other difficulties. Their poor compliance with recommended supplements might result from their ignorance of the fact that vitamins such folic acid, iron, and calcium are vital for mother health and foetal development.

Sometimes pregnant ladies could not understand the need of routinely consuming vitamins throughout the pregnancy. Believing they have already gotten enough benefit, individuals can quit taking supplements after a short time or just take them seldom. The fact that many rural women miss several ANC appointments, where they would get continuous counselling and supplements, aggravates this lack of knowledge.

4.2. Issues about side effects

Vitamin supplements might cause negative effects like nausea, constipation, or stomach pain for rural pregnant women. These adverse effects can cause the pills to be stopped, particularly in cases where doctors provide little direction on how to handle them. Iron supplements, for instance, are known to induce constipation; many women may quit taking the pills entirely without appropriate guidance on how to minimise this impact.

Pregnant women who live in remote areas might decide to discontinue taking supplements on their own if they lack simple access to healthcare practitioners to address these negative effects. Poor adherence might result from insufficient advice on how to control adverse effects or the value of ongoing supplementation despite little pain.

4.3. Earlier Pregnancy Experience

Previous pregnancy experience of a woman might affect her behaviour in future pregnancies. Should a lady have a safe prior pregnancy and delivery without using vitamin supplements, she could not perceive the necessity of following medical advice throughout her present pregnancy. In rural places where conventional ideas and customs are highly followed, this may especially be true.

On the other hand, if a woman had difficulties during a past pregnancy, she could be more likely to follow medical recommendations including taking vitamin supplements. Many times, however, rural women follow the advice of elder female relatives who may not have taken supplements during their own pregnancies, therefore extending a cycle of non-compliance with contemporary medical guidelines.

5. Environmental and Social Obstacles

5.1. Geographical Isolation

Vitamin supplementation is seriously hampered in rural India by geographical remoteness. Many rural communities have little infrastructure and inadequate transit systems and are situated in far-off or difficult-to-reach locations. Pregnant women living in these places might have great difficulties getting prenatal care and vitamin supplements among other healthcare treatments.

For those with limited mobility or financial means, women may sometimes have to spend several hours travelling to the closest health center—a difficult situation. This isolation fuels sporadic ANC visits and uneven supplementation, therefore aggravating the nutritional shortages throughout pregnancy.

5.2. Social Norms and Community Influence

The choices of pregnant women about vitamin supplements also depend on the attitudes and practices of the larger society. Peer influence and community standards define health behaviour quite strongly in rural settings. Pregnant women could be less inclined to follow vitamin supplementation if it is not well acknowledged or followed in the society. On the other hand, if peer groups, medical professionals, or community leaders encourage the use of supplements, this can result in higher compliance.

Community-based health projects and educational campaigns have effectively raised knowledge of and adherence to supplementing programs in several rural areas. In places without such programs, however, conventional wisdom may still be a barrier to the general use of vitamin supplements. Ultimately

Pregnant women in rural India have many complex and firmly ingrained hurdles to vitamin supplementation related to social, cultural, healthcare system, and personal aspects. Dealing with these obstacles calls for an all-encompassing strategy including bettering healthcare access, raising awareness and knowledge, improvement of the healthcare infrastructure, and support of community-based projects.

Advice for removing obstacles:

Strengthen healthcare delivery: By means of better transportation infrastructure and guaranteed regular provision of vitamin supplements in health centres, increase access to prenatal care services in remote regions.

Improve awareness and instruction. Through focused health campaigns and peer education initiatives, raise awareness of the need of vitamin supplementation among pregnant women, families, and communities.

Change cultural attitudes: Challenge preconceptions and conventional wisdom that impede the usage of vitamin supplements by working with local leaders and influencers.

Provide continuous training for healthcare professionals to guarantee they are ready to guide and assist pregnant women in controlling side effects and following supplements.

India can increase the health outcomes of pregnant women and their children by removing these obstacles, especially in rural regions where mother and child health outcomes remain a key public health issue.

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