



Healthy lifestyle for women of childbearing age

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ARTICLE INFO	ABSTRACT
<p><i>Article history:</i> Received: 01 August 2024 Accepted: 23 August 2024 Published: 31 August 2024</p> <p><i>Keywords:</i> Maternal nutrition preconception Healthy pregnancy preparation Balanced diet women childbearing age Pregnancy outcomes nutritional impact Nutritional education for pregnancy</p>	<p>Background: Maternal nutrition before and during pregnancy is a key determinant of pregnancy outcomes and long-term health for both mother and child. The preconception period is crucial for improving maternal well-being and reducing risks such as preterm birth, low birth weight, and developmental issues. However, many women of childbearing age (WCA) lack adequate nutritional knowledge, increasing the risk of adverse pregnancy outcomes.</p> <p>Case presentation: In collaboration with the Terminal Health Center, a program was implemented to educate WCA on the importance of balanced nutrition and healthy lifestyles to prepare for pregnancy. Activities included a field survey to assess nutritional knowledge, educational outreach through information sessions and leaflets, and monitoring and evaluation of participants' knowledge improvement. Participants actively engaged in discussions, revealing prior gaps in understanding balanced nutrition and its role in pregnancy preparation.</p> <p>Discussion: The preconception period presents an optimal window for nutritional interventions. Addressing micronutrient deficiencies and promoting healthier diets can reduce the risk of complications such as gestational diabetes and preeclampsia. The program demonstrated that educational interventions delivered through community-based healthcare centers can significantly enhance awareness and encourage long-term behavioral changes, ultimately contributing to better maternal and child health outcomes.</p> <p>Conclusion: This intervention successfully increased nutritional literacy among WCA, emphasizing the importance of balanced nutrition in preparing for pregnancy. Cross-sectoral collaborations between healthcare providers and community leaders are essential to sustain these efforts and improve maternal and child health outcomes. Future programs should focus on expanding outreach and continuous evaluation to maintain positive behavioral changes.</p>

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1. Background

Maternal nutrition before and during pregnancy is a fundamental determinant of pregnancy outcomes and the future health of both mother and child. Adequate maternal nutrition has been linked to reduced risks of complications such as preterm birth, low birth weight, and developmental issues in children. The preconception period, particularly for women of childbearing age (WCA), serves as a critical window for improving health outcomes. By optimizing nutritional status prior to conception, women can significantly enhance their chances of a healthy pregnancy and reduce risks for both themselves and their offspring (Dean et al., 2014; Stephenson et al., 2018).

Studies have consistently demonstrated that maternal nutrition during the preconception period impacts a variety of outcomes, including maternal well-being, fetal growth, and neonatal health, with particular emphasis on birth weight and long-term cognitive and physical development. For example, inadequate intake of essential nutrients such as folic acid, iron, calcium, and iodine has been shown to increase the risk of neural tube defects, anemia, preeclampsia, and other pregnancy complications (Zaçe et al., 2022). Conversely, excessive intake of calories and poor-quality diets, which are often high in fats and sugars, can lead to maternal obesity, gestational diabetes, and complications during delivery (Gómez et al., 2020; Keats et al., 2021).

Despite the clear benefits of proper nutrition during the preconception period, many women of reproductive age fail to meet the recommended dietary guidelines. Nutritional deficiencies remain common, particularly in low- and middle-income countries, where food insecurity and lack of education about balanced diets can exacerbate these issues (Black et al., 2013; Victora et al., 2021). Even in more affluent regions, lifestyle factors such as the consumption of processed foods and limited awareness about nutritional needs for pregnancy contribute to imbalances in micronutrient intake, which can adversely affect maternal and child health (Apostolopoulou et al., 2024; Marshall et al., 2022).

Targeted interventions aimed at improving nutritional knowledge and dietary habits among WUS are essential to bridging these gaps. Community-based educational initiatives, particularly those delivered through healthcare settings such as primary care centers or maternal health clinics, can significantly improve women's understanding of the importance of balanced nutrition before and during pregnancy (Brink et al., 2022; Lassi et al., 2016). These initiatives are not only effective in increasing awareness but also in promoting long-term behavioral changes that contribute to healthier pregnancies. A randomized controlled trial found that preconception care, including



nutritional counseling, was associated with better pregnancy outcomes and improved maternal health status (Dean et al., 2014).

Cross-sector collaboration among healthcare providers, nutritionists, and community leaders plays a vital role in promoting healthier lifestyles among women of reproductive age. Such partnerships can help design and implement educational outreach programs tailored to the needs of specific populations, ensuring that women have access to accurate information and resources for maintaining a balanced diet. In addition, these programs can address the cultural, social, and economic barriers that often prevent women from accessing nutritious foods, making it easier for them to adopt healthier habits (Roberto & Gorski, 2015).

Ensuring optimal maternal nutrition during the preconception period is a critical step in reducing pregnancy-related risks and improving long-term health outcomes for both mothers and children. As research continues to highlight the importance of this period, expanding educational and community-based interventions becomes increasingly necessary to address nutritional deficiencies and promote healthier pregnancies.

2. Case presentation

A program was conducted in collaboration with the Terminal Health Center to address the nutritional knowledge gap among WCA. The primary objective was to provide education on the importance of balanced nutrition and healthy lifestyles, preparing WCA for future pregnancies. The program targeted WCA as they are a vulnerable group whose nutritional status significantly affects maternal and fetal health.

The program consisted of several key activities:

1) Field survey

Initial assessments were conducted to identify nutritional knowledge gaps among WCA in the community.

2) Educational outreach

The team provided information, education, and communication (IEC) materials, including leaflets, and held interactive sessions on the importance of balanced nutrition and physical activity.

3) Monitoring and evaluation

Feedback was gathered from participants to evaluate the effectiveness of the educational sessions and assess knowledge improvement post-intervention.



The WCA involved in the program showed a keen interest in the activities, actively participating in discussions and asking questions regarding healthy diets and pregnancy preparation. Before the intervention, many participants demonstrated limited knowledge of balanced nutrition, with some adhering to unbalanced diets that could lead to poor pregnancy outcomes.

3. Discussion

The preconception period is a critical window for interventions aimed at improving maternal and fetal outcomes, particularly in resource-limited settings where malnutrition is prevalent. Adequate nutrition during this period not only ensures that women enter pregnancy with optimal health but also reduces the risk of pregnancy complications such as gestational diabetes, preeclampsia, and intrauterine growth restriction (Black et al., 2013).

Studies emphasize that educating women on the importance of micronutrients such as folic acid, iron, calcium, and vitamins during the preconception period is crucial for reducing the risk of congenital anomalies and ensuring proper fetal growth and development (Zaçe et al., 2022). Furthermore, nutritional counseling during preconception care can significantly improve dietary behaviors, leading to improved pregnancy outcomes (Apostolopoulou et al., 2024).

In the present case, the collaboration with the Health Center was pivotal in reaching a vulnerable population of WCA, who are often unaware of the long-term consequences of poor nutrition. The intervention effectively raised awareness about the importance of consuming nutrient-dense foods and maintaining a healthy lifestyle before pregnancy, which is essential for preventing malnutrition-related complications such as stunting, a major public health concern (Gómez et al., 2020; Keats et al., 2021).

The participatory and interactive approach used in the program facilitated the application of knowledge in the participants' daily lives, making them more prepared for future pregnancies. Similar interventions have been shown to have lasting effects on health behaviors, especially when they involve community leaders and healthcare workers, as they reinforce the importance of nutrition at a grassroots level (Dean et al., 2014; Stephenson et al., 2018).

4. Conclusion

This program successfully enhanced nutritional knowledge and awareness among WCA, highlighting the importance of balanced nutrition in the preconception period. The intervention demonstrated that educational initiatives, especially those delivered through health centers and involving community participation, are effective in preparing women for healthy pregnancies.



Addressing nutritional deficiencies and promoting healthy lifestyles from the preconception period is essential for reducing the risks of stunting and other adverse pregnancy outcomes. Sustainable, cross-sectoral collaborations between healthcare providers, community leaders, and educational institutions are critical for improving maternal and child health in the long term.

Future programs should focus on expanding outreach efforts, particularly in underserved areas, and emphasize the importance of continual monitoring and evaluation to ensure that positive behavioral changes are maintained. By improving nutritional literacy and access to health education, we can empower women of childbearing age to make informed decisions about their health, ultimately improving the health outcomes of future generations.

5. Conflict of interest

All authors declare no conflict of interest.

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