

Question: In pregnant women, how does adequate maternal self care education, compared with little to no education, affect the physical health of the mother and newborn?

Summary:

Obesity is one of the deadliest diseases in this country. It is especially of great significance in pregnant women. There are a copious amount of complications that can stem from this in both the mother and the baby. According to *The National Library of Medicine*, the prevalence of fetal malformation was significantly correlated with severe obesity such as malformations in the nervous system, heart defects, urinary tract malformations and many more (Stubert, 2018). For the mother, some of the most complex complications that may stem from obesity are gestational diabetes and HTN, also commonly known as preeclampsia. Without proper education, lifelong complications may result from GDM and Preeclampsia. GDM can be an issue that comes from being overweight or being obese. Not only does this affect the mother and produces a large need for her to take care of herself through insulin administration and diet control, but this is a disease that can cause problems for these newborns. “Glucose passes through the placenta to the fetus and increases fetal insulin production, which, in turn, stimulates fetal growth, causing macrosomia and children large for gestational age. In the short-term, GDM is associated with increased risk of adverse pregnancy outcomes with a following long-term risk of childhood obesity and type 2 diabetes in mother and offspring. The prevalence of GDM is rising, and so is the need for treatment (Rasmussen, 2020). *Diet and Healthy lifestyle in the management of Gestational Diabetes Mellitus* states, “First-line treatment in GDM is medical nutrition therapy, together with weight management and physical activity. It has been suggested that lifestyle modification alone is sufficient to control blood glucose in 70–85% of the women that were diagnosed with GDM” Knowing that information, we can assure that these women with this disease have the resources to look back at. Moving on to another disease that can stem from obesity is preeclampsia. This is characterized by high blood pressure that can potentially affect certain organs if left untreated. According to *The American Physiology Society*, “Rates of maternal morbidity and mortality have increased since the 1980s, topping out at 18 pregnancy-related deaths per 100,000 live births per year in 2014, with 6.8% of those from 2011 to 2014 attributable to hypertensive disorders of pregnancy”. In addition to the complications that can be developed in the women, the complications in the newborn consist of Intrauterine Growth Restriction and preterm birth. Preeclampsia is the leading cause of these (Turbeville, Sasser, 2020). To answer the question above, the women who get the proper education have a greater chance of having a healthier pregnancy and healthier newborn. Where can we start to ensure that they are well equipped to prevent these complications? The best thing to do is to control obesity earlier in the pregnancy or if possible, before conception. Adhering to a healthy diet for mother and baby would be the best case scenario compared to a mother who is not attentive to what they are eating. We can also educate them to do very simple exercising such as walking for 20 minutes a day. If things start to progress further with GDM, management for that

is crucial. Eating well and exercising is inevitable, but proper medication and insulin administration will be extremely beneficial for both the mother and the baby.

Conclusion:

As stated before, there are a multitude of complications that can stem from pregnancy such as GDM and pregnancy induced HTN. These diseases can often be avoided by women taking care of themselves earlier on in the pregnancy if they are obese. If for some reason the woman develops complications while taking care of herself, the article, *The Risks Associated with Obesity in Pregnancy*, high-level adherence and monitoring of intervention by supervision of a training program will be key to ensure the safety and wellbeing of both mother and baby (Rasmussen, 2020). Letting women feel confident enough to ask questions so that they do not endure the potential and dreadful pregnancy complications or sometimes, fatality, is the best way we reduce these horrid numbers in pregnant women and newborns.

Primary:

Stubert, J., Reister, F., Hartmann, S., & Janni, W. (2018, April 20). *The risks associated with obesity in pregnancy*. Deutsches Arzteblatt international. Retrieved February 4, 2023, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5954173/>

Secondary:

Rasmussen, L., Poulsen, C. W., Kampmann, U., Smedegaard, S. B., Ovesen, P. G., & Fuglsang, J. (2020, October 6). *Diet and healthy lifestyle in the management of gestational diabetes mellitus*. MDPI. Retrieved February 5, 2023, from <https://www.mdpi.com/2072-6643/12/10/3050>

Tertiary

Rasmussen, L., Poulsen, C. W., Kampmann, U., Smedegaard, S. B., Ovesen, P. G., & Fuglsang, J. (2020, October 6). *Diet and healthy lifestyle in the management of gestational diabetes mellitus*. MDPI. Retrieved February 5, 2023, from <https://www.mdpi.com/2072-6643/12/10/3050>