**Research Topic: Gestational Diabetes Mellitus (GDM)**

**Abstract**

According to the world health organization, a globally approximated population of 2-5% expectant mothers is GDM patients (Puder, 2015). Gestational Diabetes Mellitus is defined as the inability of the pancreatic organ of an expectant woman to balance the diabetogenic environment that is resulting from pregnancy (Alfadhli, 2016). The insufficiency of the pancreas to provide a balanced glucose environment that can ensure there is no predisposition to diabetes results in the acute development of diabetes in some women during pregnancy.

**Problem Statement**

As a student and a medic, the experience of women undergoing the challenges resulting from diabetes during pregnancy is the basis of my choice to handle this topic. There is a need for comprehensive awareness and education of the predisposing factors, preventive mechanism and the best alternatives that shape women lifestyles and thus lowering the possibility of developing GDM during pregnancy (Krejčí, 2016). The hallmark of this project is to provide systematic solution-based suggestions that will guide and improve maternal health during pregnancy, post pregnancy, and pre-pregnancy lifestyle audits are the basis of the renewed zest to create public awareness of the challenge.

**Research Setting**

From comprehensive research and schema analysis of the available data, it is evident that the GDM is commonly prevalent in the following societies: American Indians, Asians, American Africans and indigenous Australians (Krejčí, 2016). Based on this data, the major setting of our research is at the heart of these communities with satellite centers for data collection across the states whose dominant population represents any of the communities above (Puder, 2015). The awareness and campaign will embark on first checking on the lifestyle of the selected participants, their cultural disposition, and practices before during and after pregnancy (Rono et al. 2016). Additionally, through the analysis and lifestyle audit, we will attempt to draw a conclusive comparison with other communities whose the GDM prevalence is negligible to understand the reasons behind these disparities.

**Literature Review/Background to Problem Description**

Maternal health is a primary need for healthy pregnancy and healthy newborn. The need to comprehensive set up measures to curb increasing cases of maternal health both locally, nationally and internationally is to ensure that, pregnancy is safe and the infants are healthy (DeSisto et al. 2014). The key areas that show the likelihood of GDM  occurrence is analyzing the following aspects of the expectant mother’s health (Hadar et al. 2015): understanding the history if the microsomal growth of the patient and previous occurrences, assessing the family’s tree line to understand if there are any hereditary traits and obesity.

In earlier times the major causes of GDM were majorly hereditary but, with the changing lifestyles and adoption of new-chemically inspired lifestyles, the increasing cases of GDM is not hereditary but rather lifestyle-triggered cases. The overriding aspect of lifestyle for a mother is to maintain well-balanced eating habits that have less of sugar intake and alcohol (Rono et al. 2016). The feasibility of attempted efforts to manage the GDM is achievable since the current trend of the disorder is primarily lifestyle choices can be managed hence; there is hope that our project will impact positively the society and especially women.

**Potential Impact of the Problem**

Statistical evidence shows that there are an increasing number of women suffering from GDM every year (Rono et al. 2016). The increase is primarily attributed to the lifestyle changes, trends in healthcare provision, work schedules, food and other factors that may not be directly contributing to the disease (Kyhl et al. 2018). The need for these countermeasures is to lower the number of women suffering from the GDM through an increased awareness campaign and practical support structures to potential victims of these diseases (Chasan et al. 2016).

The impact of this problem is far reaching when it is considered that, the GDM has a direct impact on the development and growth patterns of the infant. The new to ensure there is adequate maternal health facilitation is to ensure there is less predisposition to the disease to the infant. The last stages of pregnancy are critical if the GDM is not managed and properly treated.

**Research Significance**

The significance of this research project is to provide wholesome awareness of the GDM to women and young girls. The need for this dual approach to taming this problem is to ensure that mothers are aware of the lifestyle needs during pregnancy and manage themselves to reducing the predisposing agents to the GDM during pregnancy (Kyhl et al. 2018). The need to educate girls about GDM is to provide first-hand adequate information on time for the young people to understand that their lifestyle choice has a significant impact on their state of health, especially during pregnancy (Chasan et al. 2015). The need to understand the relational comparison between highly prevalent communities and less prevalent communities is to know the underlying genetic, lifestyle and medical variation that can help the research to conclusively provide reasonable, applicable and successful solutions.

**Solutions to the Problem Presented**

The following are the possible solutions to the GDM cases among expectant women:

1.   Streamlining the screening protocol to be patient friendly and data analytical features of the screening should capture even the most negligible but potentially harmful development of GDM expectant women.

2.    Increasing management principles and practices of glycemic control to ensure there are minimal predisposing factors to the development of GDM.

3.     Increasing comprehensiveness of awareness and education to women and girls on the impact of lifestyle on the potential development of GDM during pregnancy.

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