

NURS-FPX6030 Assessment 2: Problem Statement (PICOT) and Literature Review

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Quality Improvement: Problem Statement (PICOT) and Literature Review

Gestational hypertension is a condition whereby the individual suffers high blood pressure after 20 weeks of pregnancy. The condition may not lead to organ damage but is mainly associated with preeclampsia, a serious birth complication that may adversely affect the mother and the baby. However, gestational hypertension normally heals on its own after delivery. Therefore, patient education is needed to understand it and how it can be managed. This paper focuses on exploring patient education for managing gestational hypertension as a quality improvement issue, taking the form of a Population Intervention Comparison Outcome and Time (PICOT) nursing research framework, and later reviews the literature to support and justify the need.

Problem Statement (PICOT)

Need Statement

Gestational hypertension is one of the pregnancy-induced conditions that go away after birth. Although it is not common, as it only happens in about 6% to 8% of pregnancies, it is a serious condition as it increases the risk for preeclampsia, thus posing a threat to the fetus and the mother during birth. High blood pressure during pregnancy begins within the second half of pregnancy, from around 20 weeks. Therefore, patient education is required to enable pregnant mothers to understand the condition and provide knowledge on managing it to avoid birth complications. The proposed project aims to assess specialized patient education's impact on gestational hypertension. Addressing the need for patient education in managing gestational hypertension is essential since it will help prevent hypertension-related preeclampsia (Maheu-Cadotte et al., 2019). The need analysis assumes that healthcare institutions can provide

specialized patient education on gestational hypertension to all patients diagnosed with the condition.

Population and Setting

The target population in the proposed project entails pregnant women with gestational hypertension. It is essential to target this population since it is the one most affected by the need. The specific women targeted in this project include women below 20 years and above 40 years, have a family history of gestational hypertension, are diabetic, have a pre-existing immune system disorder, and are expecting more than one baby. According to Liu and Meng (2022), the risk factors for gestational hypertension include being under age 20 or over age 40, having had gestational hypertension or preeclampsia during past pregnancies, having a family history of gestational hypertension, having diabetes or gestational diabetes, having an immune system disorder, such as lupus, having kidney disease, expecting multiple babies among others.

The target healthcare setting is First Choice Woman's Clinic. The clinic specializes in women's health and offers prenatal workups/services. The clinic also offers comprehensive women's healthcare services, including Obstetrics and Gynecology, preconception counseling, prenatal care, delivery, postpartum care, ultrasound, immunizations, physicals, and other services (preventative screening, testing, and treatment). The target setting of the focus is most appropriate, considering it offers prenatal, antenatal, and delivery services, thus mostly encountering gestational hypertension cases and related preeclampsia.

Intervention Overview

Various interventions can be used to address the needs of the target population and setting identified above. Patient education is one of the interventions that can be used to address the needs of the identified target population and setting. Research shows that patient education is

one of the interventions that have proved effective in increasing knowledge on gestational hypertension (Kuklina, 2020). In addition, patient education helps improve medication adherence and enhance the appropriate management of the condition. The challenges of working on gestational hypertension needs with the target population and setting include inadequate resources/educational tools, inadequate time, inadequate patient education skills of the nurse, and lack of physical and psychological readiness of the patients.

Comparison of Approaches

Other interprofessional alternatives to patient education that can address the need also exist. Health promotion, which focuses on awareness creation, is an alternative intervention that could impact the target population. Health promotion initiatives can create awareness of the condition's risk factors, thus enabling the mothers to get the necessary assistance as soon as possible, avoiding related complications. In addition, health promotion encourages interprofessional care approaches since they can be done by different healthcare providers in the team, compared to patient education, which can only be done by nurses. It also fits the target population and setting since it entails many women, while patient education would need personalized interactions. However, despite the ability to meet the desired outcome, health promotion and awareness creation's weakness is that it is less likely to be taken seriously by women, as opposed to patient education.

Initial Outcome Draft

The expected outcome of implementing the patient education intervention in the target population and setting is to reduce the cases of gestational hypertension, thus reducing related complications during delivery. Reducing complications during birth will increase the mother's and child's health and wellness. Additionally, the desired outcome means that the population is

expected to increase their knowledge of gestational hypertension and its management, thus reducing related complications and improving their quality of life. The criteria that could be used to evaluate the achievement of the outcome are the number of gestational hypertension recorded in the institution and the preeclampsia and other related birth complications. The outcome will be said to have been met with a reduction in gestational hypertension cases and related birth complications.

Time Estimate

The development and implementation of the intervention is estimated to take approximately twelve weeks. The twelve weeks include the development of the patient education program and delivering it to the patients. The uncertainties that could affect the time frame include the lack of support from the institutional leaders and the inability to educate all at-risk patients and assess their readiness to learn.

Literature Review

Research shows that gestational hypertension is one of the major issues of concern in reproductive health and antenatal care. According to Liu et al. (2021), gestational hypertension is a serious condition due to the risks it poses to the mother and the fetus. The prevalence and incidence of gestational hypertension ranges from 3% -8% of pregnancies. Laine et al. (2019) note that the prevalence of gestational hypertension in twin pregnancies is higher than in singleton pregnancies. A study by Laine et al. (2019) showed a 3.4% and 11.8% prevalence of gestational hypertension in singleton and twin pregnancies, respectively. Thus, it is evident that mothers expecting multiple babies are at a higher risk of gestational hypertension.

Additionally, gestational hypertension is a major threat to global health as it complicates pregnancies globally, leading to adverse neonatal, fetal, and maternal outcomes. The

burden is heavily felt across different healthcare settings. Noubiap et al. (2019) note that low and middle-income countries bear a disproportionate burden of gestational hypertension. Despite the variance in gestational hypertension prevalence between countries, it remains a leading cause of maternal and infant morbidity and mortality worldwide. Healthcare settings are also affected by the high rates and prevalence of the condition due to related issues. Hypertensive disorders of pregnancy are one of the primary contributors to maternal and perinatal morbidity and mortality, mainly in low-resource healthcare settings.

Gestational hypertension significantly affects the mother and the fetus. A review by Oliver-Williams et al. (2023) shows that gestational hypertension puts the mother at risk for cardiovascular disease. Additionally, women with gestational hypertension are known to be at an increased risk of hypertension later in life. Gestational hypertension's significant risks include preeclampsia and low birth weight. According to Antwi et al. (2020), preeclampsia is gestational hypertension with 300mg or more proteinuria in a 24-hour urine sample or spot urine protein/creatinine ratio of 30mg/ml. There is early onset preeclampsia, which leads to preterm delivery before 34 gestation weeks, and late-onset preeclampsia, which occurs with delivery at 34 weeks gestation or later.

However, gestational hypertension is also associated with other fetal problems, including intrauterine growth restriction, fetal development, and even stillbirth (de Moura et al., 2021). The condition is mostly severe when a mother is expecting multiple babies, which can cause severe seizures or even the death of the mother or the fetus. It also harms the placenta, brain, liver, and kidneys. De Moura et al. (2021) also note that gestational hypertension may lead to low birth weight, premature birth, and labor induction before the fetus develops to full-term. Despite the effects of gestational hypertension, most mothers are unaware of the condition and lack health

information on managing it (Leffert et al., 2021). Therefore, based on the current research evidence analyzed above, gestational hypertension is a serious need that should be addressed.

Furthermore, research evidence supports the appropriateness of addressing gestational hypertension needs within the target population and setting. The target population in this project entails pregnant women who are identified as at-risk individuals for gestational hypertension. The target healthcare setting is First Choice Woman's Clinic, which offers prenatal, anti-natal, delivery, and all other related services. The proposed project, therefore, aims at addressing the need amongst one of the at-risk populations in the identified target setting. Various risk factors exist for gestational hypertension. According to Toloza et al. (2022), thyroid dysfunction is one of the risks associated with gestational hypertension. In addition, thyroid function abnormalities increase the risk for preeclampsia, leading to adverse maternal and fetal outcomes.

Studies show that pregnant women under the age of 20 and over 40 are also at an increased risk of gestational hypertension (Nobles et al., 2020). In addition, women who have had gestational hypertension or preeclampsia in past pregnancies are at a higher risk of developing hypertension during pregnancy. A family history of gestational hypertension also increases an individual's risk of gestational hypertension. Other risk factors include having diabetes or gestational diabetes, kidney disease, and expecting more than one baby. Addressing gestational hypertension among women at a higher risk is essential in preventing the related complications during birth and, more so, related mortality and morbidity for both the fetus and the mother (Nobles et al., 2020). In addition, research shows that patient education offered in antenatal care positively affects the management of gestational hypertension (Walle & Azagew, 2019). Hence, addressing the needs of gestational hypertension in the target population and setting is supported by current research evidence.

The research evidence presented in the review and analysis above is current since it has only included studies published within the last five years. In addition, it is relevant, considering that all the studies entail gestational hypertension and mainly focus on at-risk individuals. The research evidence also provides the effects of the condition on the mother and the baby, including related complications. The incidence, prevalence, and disease burden in the literature also helped justify the need and the appropriateness of addressing the need in the target population and setting. Additionally, the evidence is sufficient and trustworthy, based on the fact that most of the studies used are systematic reviews and randomized controlled trials, some of the highest levels of evidence. More so, the studies are peer-reviewed and published in reputable journals.

However, it is worth noting that locating evidence that specifically focuses on gestational hypertension is quite challenging. Most available studies have combined gestational hypertension with preeclampsia and gestational diabetes. Therefore, the magnitude of gestational hypertension may not be articulated and understood appropriately due to the gaps in literature focusing on gestational hypertension alone.

Literature Synthesis on the Impact of Healthcare Policy and Technology in Addressing the Need to Educate Women on Gestational Hypertension in the Target Population and Setting

Health policy considerably impacts the approach selected to address gestational hypertension needs in the target population and setting. Health policies have been developed to address the healthcare needs of pregnant women. The Affordable Care Act (ACA) is a health policy relevant to the need for gestational hypertension. Leffert et al. (2021) note that one of the vital requirements of the Affordable Care Act is covering maternity care. The maternity care cover mainly caters to labor and delivery expenses, in-patient hospitalization expenses, pre and

post-natal care expenses, C-section delivery, pregnancy complications, and medically necessary terminations expenses. In addition, pre and post-delivery care includes patient education services (Berglas et al., 2019). Therefore, it is not only necessary to provide pregnant women with the necessary patient education but also the right to provide the required specialized patient education, especially for women at risk of gestational hypertension. Other policies relevant to gestational hypertension include nutrition, policies protecting pregnant women from work unfairness, and policies promoting the social needs of pregnant women, such as health information needs.

Furthermore, healthcare technology considerably contributes to the approach taken to address the needs of the target population and setting. Digital technology has traversed healthcare (Sebenkov et al., 2020), including patient education (Kuwabara et al., 2020). It is evident that technology has redefined the way patients and healthcare providers interact and communicate. Additionally, the technology used in patient education considerably impacts how patients access health information (Kuwabara et al., 2020).

As mentioned earlier, the overall goal of the proposed project is to increase the knowledge of gestational hypertension among at-risk women, thus promoting lifestyle changes and management adherence to prevent complications and related issues. Specialized patient education to the target population will heavily rely on healthcare technology for its success since most patients are conversant with the new health information delivery forms. Digital applications to facilitate patient education have been developed (Sebenkov et al., 2020), including wearable sensors that can measure the progression of high blood pressure during pregnancy (Runkle et al., 2019). The specialized patient education will not only use healthcare technology to facilitate the learning process but also educate the patients on how to use healthcare technology applications

and devices effectively to manage gestational hypertension and communicate with their care providers in case urgent help is needed. Healthcare technology will, therefore, affect the approach to address the need.

However, the literature has inadequate information concerning health policy focusing on women at a higher risk for pregnancy-induced hypertension and other related complications. The available health policies are generalized, focusing on all pregnant women. However, there is a need to develop specialized policies for women with more health needs, thus reducing maternal health disparities and enhancing health equity. In addition, effective collaboration between the Interprofessional team would promote success in providing specialized patient education on gestational hypertension, thus enhancing success in addressing the need.

Conclusion

Gestational hypertension is a serious health condition in pregnancy. It has adverse effects on the mother and the fetus. However, most mothers have inadequate information on the condition, and thus the need for specialized patient education. Addressing the education need would help prevent the related complications and, most importantly, increase knowledge on the condition's management among at-risk individuals. The literature reviewed above has justified the need and the appropriateness of using patient education to address the needs of the target population and setting.

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