Alternative Forms of Prenatal Care for Low Income Women

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Clinical Question:

For low income pregnant women does prenatal care in an alternative setting reduce the risk for pregnancy complications compared to women who have access to prenatal care in a clinic setting?

Sources of Evidence:

Kojima, N., Krupp, K., Ravi, K., Gowda, S., Jaykrishna, P., Leonardson-Placek, C., … Madhivanan, P. (2017). Implementing and sustaining a mobile medical clinic for prenatal care and sexually transmitted infection prevention in rural Mysore, India. *BMC Infectious Diseases*, *17*(1), 189. Retrieved September 17, 2018. http://doi.org/10.1186/s12879-017-2282-3

Picklesimer AH, Billings D, Hale N, Blackhurst D, Covington-Kolb S. (2012). The effect of CenteringPregnancy group prenatal care on preterm birth in a low-income population. *American Journal of Obstetric and and Gynecology, 206*(5), 415.e1-e7. Retrieved September 17, 2018.

Shah, J. S., Revere, F. L., & Toy, E. C. (2018). Improving rates of early entry prenatal care in an underserved population. *Maternal and Child Health Journal*. Retrieved September 17, 2018. doi:10.1007/s10995-018-2569-z

Yuqing Guo, Jung-Ah Lee, Rousseau, J., Pimentel, P., Bojorquez, Y., Cabasag, C., … Olshansky, E. (2016). The potential economic impact of a coordinated home visitation program: Preventing adverse birth outcomes. *Californian Journal of Health Promotion*, *14*(2), 1–13. Retrieved September 24, 2018.

Synthesis of Evidence:

A quasi-experimental study was conducted by Kojima et al. (2017) to determine the effectiveness of prenatal mobile health clinics on prenatal care and sexually transmitted infection (STI) transmission and management. Their aim was to exhibit the feasibility and accessibility to pregnant women across rural India, and to deliver quality education to these women to enhance their health outcomes. There were two separate projects in which they implemented these mobile clinics, named Saving Children, Improving Lives (SCIL) and *Kisalaya*. Between the two projects, 3,623 women participated. The Kisalaya and SCIL projects demonstrated that mobile clinics for pregnant women are acceptable models to deliver education about safe child delivery and anenatal care with HIV/STI testing in rural India. The high numbers of pregnant women attending the medical clinics show that integrated antenatal care with HIV testing services were utilized by rural pregnant women, if those services were made accessible in their communities. The high follow-up rates for the Kisalaya and SCIL projects show that it is possible to follow

mother-infant dyads when providing health services in rural settings using mobile medical clinics.

The second study by Picklesimer, Billings, Hale, Blackhurst, and Covington-Kolb (2012) conducted a quasi-experimental study. This study was conducted to determine if group verse traditional care is more effective for low income mothers. This study included 316 women in group prenatal care that was compared with 3,767 women in traditional prenatal care and of these women, most were low-risk women especially among black women. Centering Pregnancy group was the one intervention used throughout this study. The main finding included women in the group care cohort attended a median of 7 sessions of the 10 scheduled group sessions. Birthweight was 3238 +/- 588 g for women in group care compared with 3131 +/- 669 g for women in traditional care. A higher percentage of minority women participate in group prenatal care compared with traditional care. A significant difference in the rates of preterm delivery at <37 weeks' gestation by race/ ethnicity for women in traditional care. For women in group care, this disparity in rates of preterm delivery at <37 weeks' gestation by maternal race/ ethnicity was no longer significant.

Shah, Revere, and Toy (2018) conducted a quasi, cohort study. The study was conducted to describe the design, implementation, and evaluation of the effectiveness of a quality improvement initiative which addressed clinic-based barriers associated with delayed prenatal care. The population included low income, first trimester, obstetric patients. The study included a systematic random sample of 100 obstetrical patient charts were selected from all of the patients who had received obstetrical services at a federally qualified health clinic in Houston, Texas. Every fifth chart was selected from inclusion of the study. The quality improvement implementations were: improved access to pregnancy tests, ensuring appointment access for working patients, and streamlining information provided to patients on the importance of early prenatal care. Increasing external awareness of their services such as online media, social media, posters, word of mouth, public events, and outreach presentations were also implemented as well as key changes to operations of the clinic such as longer hours and expedited appointments. After the initiatives to address barriers were implemented, baseline data from the charts were compared with data after the initiatives. Demographic data showed no difference in age, parity, gravity, between the baseline and post initiatives. Of the 428 charts evaluated, 306 (71.5%) of patients had their first clinical visit in the first trimester which was significantly higher than the pre-initiative baseline of 27%. This study improved the rate of early entry into prenatal care by identifying and addressing the barriers present in a community obstetrics clinic. The proven strategies are easily adaptable to other clinics, as shown by their implementation into eight additional clinics, within the community. These findings provide quality professionals and clinicians proven strategies from improving early prenatal care rates in low income populations.

A study by Yuqing Guo, et al. (2018) was a cohort study. The goal was to determine if a prenatal home visitation program was beneficial on birth outcomes and cost savings. The population included 1,102 mothers who were part of the MOMS program in Orange county California and had live births in 2010. The mothers in this program were seen to be considerably higher risk for undesirable birth outcomes. This population was compared with 38,237 mothers from Orange County. Paraprofessionals went on home visits and gathered the prenatal and postnatal information with an RN. The MOMS program showed a decreased risk for preterm births, mortality, and infant deaths from ages 0-1 and mothers saved money during prenatal and postnatal care.

Conclusions:

By implementing group prenatal care or visitation programs outside of the clinic, low income women were seen earlier in their pregnancy, had less preterm births, less mortality rate, and improved birth outcomes. By increasing accessibility to pregnant mothers and finding barriers to seeking early prenatal care, more mothers sought prenatal care early on in pregnancy. Women who enrolled in group prenatal care had a greater birth weight than those women who sought out traditional care. There were also higher follow-up rates in the mobile clinics and more women took advantage of antenatal care and HIV testing.

Implications for Nursing Practice:

From these findings above, it would be beneficial to implement home visitation and mobile clinics alongside increasing access, such as longer clinic hours. By doing this, it led to decreased preterm births, lower mortality rate, earlier prenatal care, and decreased costs to expecting, low income mothers. It will encourage low income mothers to seek more prenatal care, will educate them more, and can help decrease sexually transmitted diseases.