Dr. Natalie Bello

The accurate determination of BP in pregnant women with chronic and gestational hypertension (HTN) is essential, as both under- and over-treatment of HTN may result in harm to the mother and/or fetus. Traditional clinic BP (CBP), which involves a healthcare provider measuring BP, is a poor surrogate for ecological BP in the naturalistic environment. Compared to CBP, out-of-clinic BP on HBPM better estimates ecological BP, and thus may be a superior measure of placental perfusion. Although these data suggest that HBPM has an essential role in the management of chronic and gestational HTN, there are several knowledge gaps that limit the widespread use of HBPM in this population. The minimum number of days of HBPM to reliably estimate mean home BP, and the long-term adherence to HBPM during pregnancy among women with chronic and gestational HTN are unknown. Finally, studies of non-pregnant individuals show that compared to traditional CBP, CBP measured using an automated device in the absence of a healthcare provider (unattended CBP) may better approximate out-of-clinic BP. In the proposed project, the minimum number of days of HBPM needed to provide a reliable estimate of mean home BP (Primary Aim 1) and the long-term adherence to HBPM during pregnancy (Primary Aim 2) will be determined. Whether mean unattended CBP versus traditional CBP is closer to mean home BP (Secondary Aim) will also be assessed.