Quality Improvement Project to Increase Postpartum Clinic Visits for Publicly Insured Women

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ABSTRACT

Objective: To increase the percentage of women who attend postpartum visits and decrease the number of days to the first postpartum visit by implementing a scheduling change.

Design: Quality improvement project.

Setting/Local Problem: A small nurse practitioner maternity care clinic in an academic health center at which only 74% of the women who attended two or more prenatal visits attended postpartum clinic visits.

Participants: A diverse sample of 25 publicly insured women who gave birth during the 5-month implementation period.

Intervention/Measurements: We added a 2- to 3-week postpartum appointment to our standard 6-week postpartum appointment. The measurable outcomes were the percentage of women who attended postpartum clinic visits and the number of days to the first postpartum visit.

Results: During the first 4 months of the 5-month project implementation phase, 14 of the 20 (70%) women who gave birth attended postpartum visits. The attendance at postpartum visits in the last month of the project was 100% (all five women). Days to first postpartum visit decreased from a mean of 40.7 in the baseline year to a mean of 21.8 by the last month of project implementation.

Conclusion: Despite the small scope of this project, our outcomes support continuing the practice of scheduling an earlier postpartum clinic appointment. The timing for when to preschedule postpartum appointments and contextual factors, such as the availability and use of telehealth technology and COVID-19 pandemic challenges, should be considered when implementing similar projects in other settings.


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In the United States, about one third of pregnancy-related deaths occur between 1 week and 1 year postpartum, and cardiomyopathy is the leading cause of death (Centers for Disease Control and Prevention, 2020). It is estimated that 60% of these deaths could be preventable (Petersen, Davis, Goodman, Cox, Mayes, et al., 2019). Significant racial/ethnic disparities in mortality exist, and pregnancy-related mortality rates for Black and American Indian/Alaskan Native women are 3.2 and 2.3 times greater, respectively, than mortality rates for White women (Petersen, Davis, Goodman, Cox, Syverson, et al., 2019).

Postpartum appointments in the United States are typically scheduled at 6 weeks postpartum, are poorly attended, and inadequately address the many challenges women face after birth (American College of Obstetricians and Gynecologists [ACOG], 2018a; Tully et al., 2017). Postpartum care is especially important for women who have few resources, chronic medical conditions, or greater risk of postpartum depression (ACOG, 2018b). Postpartum care provides an essential opportunity to manage physical and mental health conditions, access effective contraception, and discuss the risks associated with short interpregnancy intervals, including preterm birth and obesity (ACOG, 2018a; Tully et al., 2017). Henderson et al. (2016) found that women valued postpartum care and strongly supported the provision of contraception earlier than the 6-week postpartum
Although there is abundant literature about barriers to postpartum care, potential strategies to improve attendance at postpartum clinic visits have not been adequately addressed.

visit. Early access to contraception can reduce the risk of unintended, closely spaced pregnancies (ACOG, 2018a; Isquick et al., 2017; Tully et al., 2017).

Based on estimates that 40% of women do not attend postpartum visits, ACOG (2018a) recommended planning for the postpartum visit during pregnancy as part of an ongoing process rather than a single encounter; contact between a woman and her health care provider should occur within the first 3 weeks after birth. This recommendation is also consistent with the recommendations of the World Health Organization (2020) related to postnatal care.

Problem Description
Standard practice in the obstetrics department at our academic health center was to encourage women to schedule 6-week postpartum appointments. The clinic policy of the nurse practitioner (NP) faculty practice reflected standard department practice. The timing of the 6-week postpartum visit was based on the woman’s estimated due date and was routinely scheduled when she attended her 36-week prenatal visit. The initial baseline estimate of 41% attendance at postpartum visits in the NP clinic was similar to the estimate acknowledged by ACOG (2018a).

Available Knowledge
Factors That Influence Postpartum Care
The literature from a global health perspective indicates that women lack knowledge about postpartum health and are unprepared for the postpartum experience (Mahiti et al., 2015; Martin et al., 2014), have little awareness of the importance of postpartum care (Joshi et al., 2016; Zamawe et al., 2015), and experience barriers to postpartum care (Iyenjar et al., 2016). Many demographic factors have been positively associated with attending postpartum visits, including higher socioeconomic status (Upadhyai & Gupta, 2019), higher educational status of mothers or their partners (Kifle et al., 2017; Sakeah et al., 2018; Upadhyai & Gupta, 2019), older age (Sakeah et al., 2018), and having a religious affiliation (Kifle et al., 2017). Many health-related factors have also been associated with attending postpartum visits, including a history of attending prenatal care (Sakeah et al., 2018; Upadhyai & Gupta, 2019), giving birth at a health facility (Onwa et al., 2019), having a cesarean birth (Upadhyai & Gupta, 2019), and knowledge of pregnancy complications or perception of a postpartum health problem (Kifle et al., 2017).

Factors associated with low attendance at postpartum visits in the United States are often confounded by racial and ethnic disparities in care (Henderson et al., 2016). These factors include lower education, mental health disorders, increased body mass index, and type of provider (Jones et al., 2019). Having difficulty with housing, transportation, or communication with providers was associated with not attending a postpartum visit (Wilcox et al., 2016). In a classic study in this field, Bryant et al. (2006) reported that having Medicaid or no insurance, being Hispanic or Latino, having a vaginal birth, and being younger than 20 years old were also associated factors. After Medicaid expansion in Colorado, postpartum health care increased, especially for women who experienced severe maternal morbidity (Gordon et al., 2020).

Optimizing Postpartum Care
Although the need for postpartum care is established, there is little published information about how best to provide this follow-up care. In an Australian study, researchers reported that women who received just one phone call were more likely to perceive that their postpartum care was of high quality, and their perception of sufficient postnatal contact generally increased with the number of phone calls and home visits (Miller et al., 2014). Researchers who conducted a Cochrane review of randomized clinical trials in varied resource settings around the world found no evidence of lower mortality, but there was evidence of better outcomes with more home visits by mostly health care professionals, including more exclusive breastfeeding and greater satisfaction with postnatal care (Yonemoto et al., 2017).

We found only two published randomized clinical trials in which researchers compared a new model of care against the standard postpartum care by medical providers. In the first study from nearly two decades ago, MacArthur et al. (2003) reported that a midwifery model of postpartum care in England and Wales was more effective than standard care in reducing symptoms of
depression and fatigue. In the second more recent study, Laliberté et al. (2016) reported that women with prescheduled, individually tailored care in an interdisciplinary clinic were more satisfied with the breastfeeding care they received compared to standard care in Canada. Both trials were conducted outside the United States, were published more than 5 years ago, and need to be replicated in clinic settings in the United States.

The importance of postpartum care is widely accepted and provides the foundation for the current ACOG (2018a) recommendations on optimizing postpartum care by establishing contact before 6 weeks postpartum. As described, research evidence supports the provision of postpartum care and affirms that contact after birth fosters psychological well-being and greater rates of exclusive breastfeeding. Although there is abundant recent literature about the barriers to postpartum care, specific postpartum care interventions have not been sufficiently evaluated. Other than a report of increased postpartum health care after Medicaid expansion in Colorado (Gordon et al., 2020), we found no literature on strategies designed specifically to improve attendance at postpartum clinic visits.

Rationale
This quality improvement (QI) project was guided by the Quality Implementation Framework, a strong process model with a systematic and practical approach to implementation (Meyers et al., 2012). This model has four phases that represent the dynamic nature of implementation: initial considerations regarding the host setting, creating a structure for implementation, ongoing structure once implementation begins, and improving future applications by learning from experience. According to this model, factors such as clinic context, resources, and logistics influence how each step within a phase is addressed throughout the process of implementation (Meyers et al., 2012). We used the revised Standards for Quality Improvement Reporting Excellence (SQUIRE, 2015) to prepare the report of our findings.

We developed the intervention based on the assumption that adding an earlier prescheduled postpartum appointment would increase the likelihood that women would attend at least one postpartum appointment. The intervention aligns with current the recommendation for contact between women and their health care providers within the first 3 weeks postpartum (ACOG, 2018a).

Specific Aims
The overall goal of this QI student project was to increase the percentage of women who attend postpartum visits and decrease the number of days to the first postpartum visit in our NP clinic by implementing prescheduled earlier access at 2 to 3 weeks postpartum and at 6 to 8 weeks postpartum, in keeping with our department’s current policy. Our first specific aim was directed at the clinic level: to increase the percentage of women attending a postpartum visit in our clinic by 50%. Our second specific aim was directed at the individual level: to decrease the number of days to the first postpartum visit from the standard 6 weeks to a new expected mean of 3 weeks postpartum.

During project implementation, we broadened our definition of postpartum care to include a telehealth visit or in-person visit at any clinic in our health center system within 12 weeks of birth to allow for any outliers. We also refined our criteria for including women who had attended at least two prenatal care visits in our NP clinic. Based on these newly revised operationalized definitions, our health center system record review indicated that 74% of women who attended at least two prenatal visits attended a postpartum visit during the baseline year at a mean of approximately 6 weeks (41 days) postpartum. Thus, our first specific aim for this QI project was adjusted to increase attendance at postpartum visits by 25%, rather than 50%, after implementing prescheduled postpartum appointments.

In this article, we describe project implementation using the SQUIRE guidelines as a framework. Our two aims stated as specific and measurable outcomes were to increase the percentage of women in our prenatal clinic who attended any postpartum visits within 12 weeks by 25%, from 74% at baseline to at least 93% at the final phase of implementation, and to decrease the number of days to the first postpartum visit from a mean of 6 weeks (41 days) to a mean of 3 weeks (21 days). Our first process outcome was that before implementation, all clinic personnel would be oriented to the importance of comprehensive postpartum care and their roles in the project. Our second process outcome was that by the third month of implementation, 75% of women...
would have scheduled 3- and 6-week postpartum appointments prenatally.

Methods

Context

The site for this QI project is a small outpatient clinic set within a larger department that provides most of the postpartum care in a major academic health center. Although we prioritize continuity of care, women often meet several maternity care providers during their prenatal and postpartum visits. All health care providers in our health center system use the same electronic health record system.

Our clinic is an NP faculty practice and is open two half-days per week. We provide prenatal and postpartum care for a population of primarily low-income, publicly insured women and their families. Our interdisciplinary clinic team includes NPs, NP students, licensed vocational nurses, medical assistants, receptionists at the front desk, a social worker, a registered dietician, and a collaborating physician available for remote consultation.

The QI project team was led by an NP who is also the clinic director. The implementation team included the clinic manager, office staff, NPs, and NP students. We consulted additional stakeholders during the planning and implementation phases. These stakeholders included women from our clinic population and their families, a social worker, a registered dietician, the site department administrator, a certified nurse-midwife, and a maternal–fetal medicine specialist.

Intervention

In line with ACOG guidelines for optimizing postpartum care (ACOG, 2018a), we designed an intervention where we scheduled an earlier appointment at 2 to 3 weeks postpartum in addition to the standard 6-week postpartum visit.

At the 36-week prenatal appointment, we advised women to present to the clinic receptionist to schedule two appointments: a postpartum visit between 2 and 3 weeks after their due dates and a postpartum visit between 6 and 8 weeks after their due dates.

The QI project implementation coincided with the first month that local shelter-in-place orders were announced for the COVID-19 pandemic. One week after shelter-in-place orders began, the clinic was relocated to another building to consolidate services, and staffing was drastically reduced as a result of deployment and exposure precautions. Although we originally envisioned other NP professional staff and all office staff as project team members, the unpredictable and inconsistent staffing did not allow for orientation to the QI project. Therefore, the NP clinic director focused on orientation of the clinic receptionists, who schedule the bulk of postpartum appointments.

Guided by the QI framework (Meyers et al., 2012), the planned 6-month intervention implementation phase was shortened to 5 months to accommodate the challenges posed to clinic operations early in the pandemic. During the first 2 months, our health care system was making rapid changes in service delivery in response to the pandemic, including a temporary change in location and the rapid expansion of telehealth services. As a result, we adopted a standardized combination of in-person and telehealth visits to reduce the risk of COVID-19 exposure. Postpartum visits were routinely scheduled as telehealth, with exceptions based on medical indications. During the second month of the intervention implementation, our clinic returned to its usual location with reduced staffing. In the third month, staffing continued at 50% but became more consistent, and the QI project director was able to meet in person with the clinic receptionists to reaffirm their understanding of the intervention. In the fourth month, the project leader oriented the new practice manager and nurse manager to the intervention. During the final month of the QI intervention implementation, the project leader reviewed the QI project intervention with staff at an orientation session.

The original process objective of orienting clinic personnel before implementation was modified because of the difficulty in accessing nonessential staff during the first months of the COVID-19 pandemic. Rather than sharing responsibility for orientation with the practice manager as initially planned, the project director oriented the two regular clinic receptionists individually to their primary responsibility for scheduling the clinic postpartum appointments. The project director also oriented the two regular student preceptors, five back-up preceptors, and three groups of students who rotated through the clinic during the project period.
Measures
To achieve the QI project aims, we implemented a process of prescheduling a clinic appointment for 2 to 3 weeks and 6 weeks postpartum while attending the 36-week prenatal visit. Measures were obtained from our health care system medical records data and included a deidentified list of women who attended our NP clinic at least twice before giving birth, age, race, the date of birth for each woman, mode of birth, and the date of first postpartum clinic visit. These measures were exported to an Excel spreadsheet that allowed us to examine the individual-level (number of days to the first postpartum visit) and clinic-level (percentage of attendance) outcomes to assess achievement of the project.

To accomplish the first specific aim for clinic-level outcomes, we first collected retrospective medical record data to establish the pre-implementation baseline values. Because of urgent pandemic-related issues, accessing the medical record data needed for establishing the baseline percentage of postpartum visits was delayed until the end of the project implementation period. As a result, our baseline data were substantially different from the original needs assessment estimate based on a manual count. For our metrics, we included women with at least two prenatal care visits in the NP clinic within 280 days (about 9 months) before birth. To calculate the monthly percentage for attendance at a postpartum visit, we used the number of women from our NP clinic attending in-person or telehealth postpartum visits within 7 to 84 days after birth within the academic health center and divided that number by the total number of women who attended at least two prenatal visits in our clinic. The overall mean percentage for the 12-month baseline period before implementation was compared to the percentage for each month during the 5-month implementation phase. To accomplish the second aim for individual-level outcomes, the number of days to the first postpartum in-person or telehealth visit was computed for each woman by subtracting the date of birth from the date of her first postpartum visit.

We tracked the first process objective by recording staff attendance at every orientation session. We tracked the second process objective through an electronic health record report of births, which included whether and when postpartum appointments were scheduled. Because we had not met this objective at the 3-month goal, we generated the report again at 4 and 5 months of implementation.

### Table 1: Participant Characteristics Before and After Project Implementation

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Before Implementation, 2019 (n = 94)</th>
<th>After Implementation, 2020 (n = 25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>29.2 ± 6.1</td>
<td>29.9 ± 6.8</td>
</tr>
<tr>
<td>Mean ± SD</td>
<td>30.0</td>
<td>30.5</td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16–20, n (%)</td>
<td>8 (9)</td>
<td>2 (8)</td>
</tr>
<tr>
<td>21–34, n (%)</td>
<td>70 (74)</td>
<td>18 (72)</td>
</tr>
<tr>
<td>35–42, n (%)</td>
<td>16 (17)</td>
<td>5 (20)</td>
</tr>
<tr>
<td>Type of birth, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaginal</td>
<td>70 (74)</td>
<td>20 (80)</td>
</tr>
<tr>
<td>Cesarean</td>
<td>24 (26)</td>
<td>5 (20)</td>
</tr>
<tr>
<td>Postbirth hospitalization, hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean ± SD</td>
<td>57.4 ± 19.3</td>
<td>49.8 ± 20.3</td>
</tr>
<tr>
<td>Median</td>
<td>53</td>
<td>48</td>
</tr>
<tr>
<td>Postpartum visit day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean ± SD</td>
<td>40.7 ± 13.1</td>
<td>21.8 ± 15.1</td>
</tr>
<tr>
<td>Median</td>
<td>41.5</td>
<td>14.9</td>
</tr>
</tbody>
</table>

*Independent-samples t test, \( t = 5.4; p < .001; 95\% CI [12.0, 25.9]\), mean difference = 18.9 days. *Mann-Whitney U test, \( p < .001.\)
The time to the first postpartum clinic visit decreased from a mean of 40.7 days at baseline to 21.8 days after project implementation.

Analysis
We applied descriptive statistics (frequencies and percentages) to summarize the number of postpartum visits before and after project implementation. We used means and standard deviations to describe number of days to the first postpartum visit before and after project implementation, an unpaired t test to compare the preimplementation and postimplementation mean number of days to the first postpartum visit, and a Mann-Whitney U test to compare the median number of days to the first postpartum visit. We used chi-square tests to compare preimplementation and postimplementation associations with dichotomous variables such as vaginal or cesarean birth. We performed all calculations and statistical analyses in SPSS, version 26.0, software.

Ethics Considerations
This QI project was reviewed for protection of human subjects using the online institutional review board determination tool developed by the University of Minnesota. The responses on this tool indicated that the project was quality assurance/QI and did not meet the federal definition and criteria for human subjects research. Institutional review board expedited review approval was obtained from the project institution.

Results
There were 25 women who met our criteria of having completed two prenatal care visits in our NP clinic and gave birth during the 5 months of the implementation phase of the QI project. We summarize the demographic characteristics of this group of women in Table 1 along with the demographic characteristics of the group of women from the preimplementation year for comparison. Maternal age at the newborn's birth was similar for the baseline group and the project group. There was no significant difference in the cesarean birth rate between the two groups. Race/ethnicity was also representative of the geographic area for publicly insured women and included Black (32%), Asian (25%), White (15%), Latinx (12%), and other/mixed or declined to answer (20%).

Nineteen of the 25 (76%) women attended at least one postpartum visit. Ten women received their care in the NP clinic, and nine women attended postpartum visits at other clinics within the department. Six of these women had transferred care to another clinic during pregnancy, usually because of location preference. The other three women received all their prenatal care in the NP clinic and attended postpartum visits at clinics located closer to the birth center.

We did not fully achieve either of our process objectives. The first process objective, to orient clinic personnel before project implementation, was interrupted by COVID-19 pandemic restrictions. As a result, we were able to orient only a select few key clinic personnel before we began implementing the intervention. However, during the third month of the project implementation, we oriented the remaining clinic personnel when they moved back into the office space. The second process objective of prescheduling women for both postpartum appointments was not being met at 3 months into the 5-month implementation phase. Of the 15 women (60%) who gave birth during the first 3 months, none had both postpartum appointments prescheduled prenatally. Prescheduling both appointments prenatally remained unchanged at 4 and 5 months into the project, with the final 10 (40%) women. However, an additional visit at 2 to 3 weeks postpartum was scheduled after these women gave birth.

We did accomplish our specific aims addressing clinic-level and individual-level outcomes. Attendance at postpartum visits varied over the first 4 months, but in the last month of the project, attendance was 100%, which exceeded the targeted clinic-level outcome of 93%, or a 25% increase from 74% at baseline (see Figure 1). These visits included in-person or telehealth interactions. As seen in Table 1, the mean number of days to the first postpartum visit decreased by 18.9 days, from 40.7 ± 13.1 days in the baseline year to 21.8 ± 15.1 after the project was implemented. In addition, the median number of days decreased from 41.5 to 14 days (2 weeks). The monthly changes in the mean number of days to the first postpartum visit during project implementation are compared to the annual mean preimplementation in Figure 2.

Discussion
Summary
Although implementation of the QI project was a difficult process to accomplish in a timely manner in light of restrictive pandemic protocols, we were
In-person visits but also earlier access to comprehensive postpartum care.

We were able to partially meet our process objective to train staff, students, and providers, despite limited access to clinic staff because of the COVID-19 pandemic precautions in place. The entire clinic team was not oriented as originally intended, which could have contributed to scheduling most postpartum appointments after birth rather than prescheduling postpartum appointments before birth. Prenatal scheduling of the 2- to 3-week postpartum appointment was not added to department policy until halfway through the implementation period. As more clinics operationalize this new policy and department culture shifts, it is likely that more postpartum appointments will be prescheduled during a prenatal visit.

Interpretation

Despite the limited time frame for the implementation of this student QI project, we accomplished our aims at the 5-month assessment point. The decrease in the number of days to the first postpartum visit not only indicates success in achieving our goal but also meets the ACOG recommendation for beginning contact between a woman and her health care provider within the first 3 weeks postpartum (ACOG, 2018a). Our new mean of 21.8 days falls within the 3-week time frame, and our new median of 14 days indicates that half of our visits occurred within 2 weeks postpartum.

There are four possible explanations for our positive outcomes. One explanation may be that the expanded use of telehealth appointments increased access to postpartum care for women who otherwise might have missed appointments. Telehealth may increase access to care because it removes barriers related to transportation, time off work, and childcare arrangements (Franciosi et al., 2021). Another potential influence on the positive outcome might be associated with pandemic-related social isolation, which could increase the desire or need for psychosocial support and, as a result, motivate women to attend postpartum appointments. In addition, training our clinic staff may have heightened their awareness of how important postpartum care is to the health and well-being of the family unit.

Finally, it is possible that simply scheduling more than one postpartum appointment increased a woman's awareness of the importance of postpartum care. This would support the assumption...
Planning for postpartum care during pregnancy should include a postpartum appointment before 6 weeks after birth.

that an additional appointment would increase the likelihood that at least one appointment would be attended.

When interpreting these findings, it should be noted that very few women in our sample were younger than 20 years or older 35 years of age. Because of age differences known to influence attendance at postpartum visits (Sakeah et al., 2018; Wilcox et al., 2016), more evidence with younger and older women is needed to support our results. In addition, interpretation of these findings could be enhanced in future projects by including exit interviews with women to better understand the factors associated with attendance at earlier appointments. It is also necessary to continue with monthly monitoring to determine whether this increased attendance is sustainable beyond the four steps of the QI framework.

Clinical Implications

Despite the COVID-19 pandemic, the time to first postpartum contact with a provider decreased over the 5-month implementation. This finding may be the most important clinical implication of our QI project. It supports operationalizing the intervention, which, coincidentally, became department-wide policy midway through the project implementation. This policy implies that the ACOG recommendation of postpartum care planning during pregnancy should include prenatal scheduling of postpartum appointments. Training all clinical team members and office staff will be essential for successful policy implementation in the future.

The discrepancy between the needs assessment estimate of percentages for attendance at postpartum visits and the actual baseline numbers calculated when clinic data became accessible during project implementation has important clinic-level implications. Even the best estimates based on a manual review of the number of postpartum visits and missed appointments in a small clinic must be validated by a careful medical record audit using the same parameters for baseline and postimplementation comparisons. Our discrepancy in postpartum clinic visits was likely due to refining the definition we used as the criterion for a postpartum visit to also include a telehealth appointment. For the original manually based estimate, we considered only postpartum appointments attended in the NP clinic, whereas the refined definition resulted in a much larger numerator that included postpartum appointments in any clinic within our health care system. We also expanded the denominator to include any woman who had attended at least two prenatal care appointments in our NP clinic. Thus, the revised denominator likely included women who initiated care or transferred care from another institution late in pregnancy. For women who did not receive continuity of care with one provider group, postpartum visits may be especially important.

Based on the QI framework (Miller et al., 2014) and our results, we recommend that other providers seeking to improve postpartum care consider the aspects of optimizing postpartum care that are most important and relevant to their clinic settings. If earlier contact between a woman and her health care provider is one of these aspects, adding an earlier postpartum appointment should be considered. However, this intervention alone may not improve attendance. Additional considerations should include contextual factors relevant to the setting with regard to whether these appointments should be scheduled prenatally or during the woman’s hospital admission before discharge.

Another clinical approach could involve scheduling postpartum appointments earlier in pregnancy or in the hospital at the time of birth. Waiting to preschedule postpartum visits until 36 weeks gestation may exclude some women at greater risk of preterm birth. Earlier prescheduling would allow for additional attempts to schedule or confirm a postpartum appointment date, whereas scheduling a postpartum visit during hospitalization after giving birth would accurately pinpoint timing for the postpartum visit. In some settings, the electronic health record may be used to trigger a reminder to schedule the earlier visit. The utility and feasibility of telehealth appointments should also be considered in a program to implement earlier postpartum visits.

Before the widescale implementation and evaluation of earlier postpartum visits in clinical practice, further research is needed to better define postpartum maternal morbidity and risk factors associated with lack of postpartum visits, how to
best measure these morbidities, and what evidence-based interventions are most efficacious for improving postpartum outcomes. With this in mind, Tully et al. (2017) convened a group of mothers, health care providers, and other stakeholders to discuss perinatal care. The qualitative analysis of these discussions called attention to an imbalance between such intense focus on prenatal care compared to infrequent and late postpartum care, and the need for mothers to have comprehensive perinatal care.

The essential clinical elements of postpartum care necessary for maternal health also require refinement. These elements include who should provide the care, as well as when and where this care should take place. Although there is little agreement on how much postpartum care is needed and how best to provide it (Miller et al., 2014), the ACOG (2018a) recommendations focus on outpatient care coordinated by clinicians within a certain time frame. More clinical research is needed to test this recommendation and other models of care.

Limitations
We based the intervention for this QI project primarily on ACOG recommendations that are widely endorsed by several national professional organizations, including the National Association of Nurse Practitioners in Women’s Health (ACOG, 2018a). However, the project design did present some limitations. Although there was a decrease in the number of days to the first postpartum appointment, our data retrieval form was not designed to indicate whether the proportion of postpartum visits increased as a result of attendance at an earlier postpartum appointment, attendance at the traditional 6-week postpartum appointment, or attendance at telehealth visits during our postpandemic protocols. However, the decreased time to attendance suggests that ACOG’s recommendation of earlier postpartum contact was met.

The QI project also had some limitations beyond the COVID-19 pandemic issues that affected implementation. Our small sample did not allow us to evaluate our outcomes by age or race/ethnicity. In addition, the number of postpartum visits monitored for less than 6 months after implementation of the project may limit generalizability to potential monthly or seasonal variations in attendance at clinic visits. The short 5-month duration for implementation of this student project also limited our ability to observe detailed patterns of change over time, and a longer time frame would be required to assess the sustainability of our outcomes. Finally, although our clinic provides care for an estimated one third of the institution’s publicly insured women during pregnancy, the outcomes may have been influenced by unique characteristics of our NP faculty practice that are not shared by other obstetric clinic practices in the academic health center.

Conclusion
Strengths of this QI project include the racial/ethnic diversity of the women in our clinic and their wide reproductive age range. Although the sample size was limited and the implementation time frame was brief, the process and results are relevant to other small NP faculty practice clinics serving inner-city populations of women who are publicly insured. Although a longer implementation time frame would yield a larger number of women and visit opportunities, more time for implementation may bring additional challenges such as a change in policies, administration, or staffing.

Despite the small scope of this project, our outcomes support continuing the practice of scheduling an earlier postpartum clinic appointment. The timing for when to preschedule postpartum appointments, as well as contextual factors such as the availability and use of tele-health technology and COVID-19 pandemic challenges, should also be considered when implementing similar projects in other settings.

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CONFLICT OF INTEREST
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