

12-2016

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A Systems Intervention for the Transition of Postpartum Women to Primary Care

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Abstract

The Institute of Medicine (2001) describes the United States' healthcare system as poorly organized and difficult for patients to navigate. Patients are often lost during the transition between providers, failing to establish subsequent care (Thomas, 2015). Gaps in care lead to worsening conditions that result in billions of dollars in healthcare costs (National Quality Forum, 2016). Following discharge from the care of the obstetrician, postpartum women should establish care with a primary care provider (American College of Obstetrics and Gynecology, 2016). The American College of Obstetrics and Gynecology recommends that postpartum women transition to a primary care provider within the year following childbirth (Pai-jong, Nakashima, Yamamoto, Ngo, & Kaneshiro, 2011). Less than 33% of women nationally adhere to this recommendation (John Hopkins Medicine, 2014); less than 5% of women within the host clinic transitioned to a primary care provider. This project aimed to improve the transition of postpartum women, ages 18 to 44, to a primary care provider. The primary objective was to increase the number of postpartum women who scheduled and attended a primary care provider appointment within 2 months of delivery. The intervention included patient information material, staff training, and a process for establishing care with a primary care provider. Between June 12, 2016, and August 15, 2016, 27 women met the inclusion criteria. Following the intervention, 23 women (82%) scheduled a primary care provider appointment, and 12 women (44%) attended the appointment. Results suggest that a combination of provider counseling, patient education, and assistance with the transition process can influence patient adherence to expert recommendations for establishing subsequent care.

Key words: Care transition, Postpartum, Primary care

A Systems Intervention for the Transition of Postpartum Women to Primary Care

The Institute of Medicine's (IOM) report, *Crossing the Quality Chasm* (2001), describes the health care system in the United States as poorly organized and difficult for patients to navigate. It also reveals that the lack of information provided to patients when transitioning from one setting to another, renders them poorly capable of making care decisions for themselves (IOM, 2001). Care transition is the purposeful and planned movement (Jameson, 2011) of a patient between providers (National Transition of Care Coalition (NTOCC), 2016) based on the patient's health care needs. When a patient's health care needs change, a provider with skills to manage the current condition is required. While advances in technology and the expertise of health care professionals work to provide optimal care, it is during the transition between providers or settings that patients encounter situations that ultimately compromise their health (The Joint Commission, 2012). This is evident by the failure to establish subsequent care (Thomas, 2015), and results in worsening health conditions, medication and treatment errors, preventable emergency department visits, preventable hospitalizations, and unnecessary pain and suffering (National Quality Forum, 2016).

Statement of the Problem

The American College of Obstetrics and Gynecology (ACOG) recommends that postpartum women return to the care of a primary care provider (PCP) following the postpartum visit, and within 1 year of childbirth (ACOG, 2016; Pai-Jong et al., 2011). Less than 33% of postpartum women nationwide (John Hopkins Medicine, 2014), and less than 5% of postpartum women within the host clinic meet this goal. Ideally, women establish care with a PCP for routine care and management prior to a pregnancy, transition to the care of an obstetrician for the duration of the pregnancy, and transition back to the PCP following the pregnancy. In reality,

however, many women of childbearing age do not seek medical care until there is a pregnancy (Beeckman, Louckx, & Putman, 2011). With no established or identified provider to assume care in the postpartum period, women are predisposed to poor outcomes that result from unmet health care needs and worsening conditions.

Background and Significance

Most research on care transitions has focused on the transition between inpatient and outpatient settings (Maddux, Ricks, & Bass, 2015; McManus et al., 2015; White, McManus, & McAllister, 2012). However, studies are increasingly focusing on the transition of special populations, such as adolescents and the elderly (McManus, et al., 2015; Oluabunwa, Jordan, Shah, Fost, & Flacker, 2013). Childbearing women are another population who require a care transition. Following childbirth, ACOG recommends that women follow-up with the obstetrician within 4 to 6 weeks, and return to the care of a PCP within 1 year (ACOG, 2016; Pai-jong et al., 2011). Despite these guidelines, less than 50% of postpartum women return to the obstetrician for the postpartum visit, and less than 33% transition to the care of a PCP (ACOG, 2016; John Hopkins Medicine, 2014). The poor transition rate is not a reflection that the care is unwarranted. Song, Chae, and Kim (2014) report that almost all women experience at least one physical symptom during the first year after childbirth, while Cooklin et al. (2015) find that 94% of women report physical health problems which may include pain, backache, fatigue, constipation, hemorrhoids, and urinary or fecal incontinence within the first 6 months after childbirth. Both accounts support the need for a relationship with a PCP to address these health concerns. Additionally, women returning to a PCP from a specialist, benefit from the preventive care services offered within the primary care setting. These services include immunizations, flu vaccines, cancer screening, early detection of heart disease and diabetes, and the promotion of

healthy behaviors that may prevent future illness and death (McMorrow, Kenney, & Goin, 2014).

Women diagnosed with gestational diabetes mellitus (GDM), hypertensive disorders of pregnancy (HDP), or depression require continued monitoring and management in the postpartum period to prevent the onset of chronic disease (Ehrenthal, Maiden, Rogers, & Ball, 2014; Stasenko et al., 2011; Walker, Murphey, & Nichols, 2015). Women diagnosed with GDM are 7 times more likely than women who were normoglycemic during pregnancy to develop Type 2 diabetes (Stasenko et al., 2011), with risks beginning soon after delivery (Ehrenthal et al., 2014). Women diagnosed with HDP are 4 times more likely to develop hypertension, doubling their risk for cardiovascular disease (Ehrenthal et al., 2014). Cardiovascular disease is one of the top 3 causes of death in childbearing aged women, and the leading cause of death in all women (Walker et al., 2015). Depression is experienced by approximately 1 in 5 mothers (Morgan & Yount, 2012). Depression is a health concern that causes disability and disease (Walker et al., 2015), has an immediate impact on the well-being of the patient and infant (Walsh, Hepper, Wadephyl, & Jomeen, 2013), and disproportionately affects low-income women from ethnic minority groups (Barakat, Martinez, Thomas, & Handley, 2014). A study by Barakat et al. (2014) supports a relationship between diabetes and postpartum depression that may further increase the health risk of women with GDM. With the prevalence of GDM, HPD, and depression increasing (Walker et al., 2015), transitioning postpartum women to a PCP ensures that they receive the care to prevent future complications.

Current Practice Assessment

Primary System Assessment

The host health system is a group of federally qualified health centers (FQHCs) offering a variety of health care services in underserved urban and rural communities of Bexar, Kendall and Hays counties in south central Texas (Communicare Health Centers [CHC], 2015) (Table 1). The services available include family health (primary care), pediatric care, women's care, senior care, dental care, vision care, behavioral health, speech and language therapy, minor surgery, and general surgery (CHC, 2015).

A practice assessment was performed at one of the health system's sites, located on the west side of San Antonio, the central city in Bexar County, and in the 78207 zip code. This zip code contains 15,892 single and multi-family homes, and 1,428 businesses (White, 2014). The community has a higher concentration of Hispanic residents (90.8%) than San Antonio (63.2%) as a whole, the majority of which have less than a high school education (59%) and a higher percentage of people living below the poverty level (38.6%) (White, 2014). The poverty level, or poverty threshold, is determined each year by the Census Bureau and is based upon the pretax cash income of a family or household (Institute for Research on Poverty, 2014). The average family income in this population is \$28,652/year, which is significantly less than the national average of \$70,000/year (White, 2014). Additional information on education, employment, income, citizenship and language of the population residing in this area is provided in Table 2. The microsystem assessment was performed between August 1, 2015 and October 31, 2015 in a primary care clinic and in the Obstetrics/Gynecology (OB/GYN) clinic of this west side health center. The primary care clinic serves as the patient's main source for medical care, managing the patient's overall condition by providing preventive and curative care. Approximately 1,300

patients were assigned to this clinic. Most were Hispanic (97.9%), female (72%), and between the ages of 19 and 64 years (88.1%), however all ethnicities, genders, and ages are served.

Patients presented for care most often due to an acute issue (74.8%). However, there was a growing number of patients who routinely presented for chronic care management (18.9%)

(Table 3). The assessment revealed that this clinic maintains high patient satisfaction scores for access to care and staff professionalism. The clinic's staff consisted of one primary care

physician, one primary care nurse practitioner (NP), one behavioral health NP, one licensed vocational nurse (LVN), three medical assistants (MAs), and three front desk clerks (Table 4).

The OB/GYN clinic provides health care related to pregnancy, childbirth, and disorders of the female reproductive system. Services are provided to females of all races, ages, and socio-

economical statuses in need of this type of health care. Most insurance plans are accepted. For women without medical insurance coverage, there is an option to pay for services. Services are

offered at a reduced rate for women who provide proof of an inability to pay the full cost.

Hispanic women between the ages of 19 and 64 years were predominantly (98.1%) serviced in this clinic. Greater than 76% of the OB/GYN clinic patients were seen for pregnancy and

pregnancy related conditions, but also presented for acute and chronic issues and well-woman examinations. Review of a report generated from the electronic medical record (EMR) database

revealed 801 unique patients who were served by this clinic during a three month time frame.

Assessment of the processes and procedures in each clinic revealed that patients receiving care in

the primary care clinic were consistently offered United States Preventive Services Task Force recommended preventive screenings, immunizations, and chronic disease management. A

comprehensive assessment, along with suggestions for lifestyle modifications, was provided in the primary care clinic to promote self-management and general well-being. Patients receiving

Table 1

Comparison of Host System Populations

Characteristic	Kendall County	Hays County	Bexar County	San Antonio	Zip code 78207
2014 Population	38,880	185,025	1,855,866	1,436,697	55,514
Age					
<18years	23.4%	23.6%	26.2%	26.8%	34%
>65years	19.1%	10%	11.3%	10.4%	12%
Median age		-	33	-	30
Gender					
Female	50.4%	50.2%	50.8%	51.2%	47%
Race					
White, Non-Hispanic	74.4%	56.2%	29.2%	26.6%	2.8%
Black	1.1%	4.1%	8.3%	6.9%	4.2%
American Indian, Alaskan	0.7%	1.2%	1.2%	0.9%	1.8%
Asian	1%	1.5%	2.9%	2.4%	0.4%
Hispanic	22.4%	37%	59.3%	63.2%	90.8%
Homes					
Homeowners	74.5%	66.8%	59.7%	55.7%	
Median home value	\$274,400	\$175,600	\$123,700	\$113,800	\$56,100
Persons per home	2.7	2.7	2.84	2.8	3.9%
Income					
Median home income	\$73,410	\$58,651	\$50,112	\$45,722	\$20,117
Persons below poverty	9.3%	17%	17.6%	19.9%	38.6%

Note: Data for Bexar County, San Antonio, and zip code 78207 overlap, but are provided to illustrate differences in the populations served.

care in the OB/GYN clinic received only the preventive screenings related to pregnancy and the female reproductive system.

A random review of 75 EMRs of OB/GYN patients was performed focusing on women who presented for an annual well woman examination. The review revealed that 39% of these women had only made contact with the OB/GYN clinic for medical care in the previous 12 months, and therefore may have failed to receive a comprehensive medical examination,

Table 2

Individual and Family Characteristics as a Percentage in Zip Code 78207

Characteristic	Population (n = 55,514)
Education level	
High school or less	59%
High school graduate	35%
Bachelor or associate degree	5%
Graduate degree	1%
Employment	
Employed	38%
Unemployed	6%
Not in the labor force	57%
Income	
<\$30,000/year	69%
\$30,000 to \$74,999/year	27%
\$75,000 to \$149,000/year	3%
>\$150,000/year	0%
Citizenship by birthplace	
Native born citizen	80%
Foreign born citizen	6%
Foreign born non-citizen	14%
Language	
English	7%
Spanish	93%

general preventive care, and chronic disease management. These are services covered by Medicaid and most insurance plans. Conversations with three women in the OB/GYN waiting room revealed that they were unaware that annual medical examinations were recommended in addition to the annual well-woman exam, and that the fees for these services are routinely paid by health insurance plans. A root cause analysis revealed that women who presented for annual well-woman examinations were neither informed of the need for the comprehensive medical examination, nor referred to a PCP to establish care. Over time, the OB/GYN front desk clerk and MAs had omitted administrative tasks in order to check patients in and triage them quicker. These tasks include reviewing the patient's EMR for preventative care alerts, (vaccines or screenings that are due), updating the EMR to address missing or incorrect information, such as

Table 3

Primary Care Clinic Patient Demographics

Characteristic	Population (n = 1,278)
Age	
Birth to 10 years	0.7%
11 to 18 years	4.9%
19 to 45 years	52.2%
46 to 79 years	35.9%
80+ years	0.3%
Gender	
Female	72%
Race	
Hispanic	97.9%
Black	1.4%
White, Non-Hispanic	0.7%
Language preference	
English	59%
Spanish	41%
Top Zip codes	
78207	33%
78204	17%
78205	19%
78201	14%
78237	5%
Top Conditions	
Hypertension	44%
Obesity	56%
Hyperlipidemia	42%
Diabetes	36%
Anxiety/depression	17%
Visit type	
Acute	74.8%
Routine	18.9%
Well Exam	4.2%
Hospital Follow up	0.7%
Payor	
Medicare	4.9%
Medicaid	5.6%
PPO	2.8%
HMO	2.1%
Private insurance	2.1%
Other	1.4%
None	81.1%

Table 4

OB/GYN Clinic Patient Demographics

Characteristic	Population (n = 801)
Age	
Birth to 10 years	0%
11 to 18 years	9.9%
19 to 45 years	74.2%
46 to 79 years	19.9%
80+ years	0.3%
Gender	
Female	100%
Race	
Hispanic	98.1%
Black	0.7%
White, Non-Hispanic	1.2%
Language preference	
English	61%
Spanish	39%
Top Conditions	
Pregnancy	76.7%
Contraceptives	52%
Yeast infection	38%
BV infection	37%
Annual exam	37%
STI	23%
Abnormal PAP exam	20%
Menstrual disorders	13%
Visit type	
Acute	12.8%
Routine	81.9%
Well Exam	5.2%
Hospital Follow up	0.1%

the name of the patient's PCP, and questioning the patient about medical concerns since the last clinic visit, medical history, and visits to other providers; all of which may alert the provider of the patient's need to establish care with a PCP. The workaround created by the OB/GYN staff prevented the identification of patients who were in need of a broader range of medical services, and ultimately resulted in the patients not receiving comprehensive care. The OB/GYN clinic and the primary care clinic serve a population of patients who are similar in race, culture, and geographical location. Unless seen by a PCP, women presenting to the OB/GYN clinic may be

undiagnosed and/or untreated for conditions commonly found in this population by the primary care clinic.

Concerns regarding comprehensive medical examinations and the transition of patients to a PCP were shared with the OB/GYN physicians, NPs, LVN, MAs, and clerical staff; the practice manager and primary care clinic physician and NP. The OB/GYN providers and staff were able to recognize the patients' need to establish care with a PCP, and voiced the desire to assist in this process. The practice manager, primary care physician and primary care NP agreed that a process for identifying and transitioning women without a PCP to the primary care clinic would be beneficial. A meeting was scheduled with the health system's Vice President/Director of Clinical Affairs to share the assessment findings and the desire to proceed with a quality improvement (QI) intervention to transition these women to a PCP. During the meeting, the Director of Clinical Affairs indicated a desire to assemble a team to develop a process for transitioning adolescents from the pediatric clinic to the adult primary care clinic. Upon learning of the Doctorate of Nursing Practice (DNP) student's ability and requirement to complete a QI project, he voiced an interest in the DNP student developing a process for transitioning the pediatric population. Due to the focus of the initial microsystem assessment, which contained no assessment data regarding the pediatric population or clinic practices, the initial QI project could not be adapted to include pediatric care transitions. The microsystem assessment could, however, be used to develop a process for transitioning postpartum women from the OB/GYN clinic to the primary care clinic. The Vice President/Director of Clinical Affairs agreed with the plan to focus on the population of postpartum women, and voiced intentions to use the interventions and knowledge gained from the DNP student's QI project to develop a process for adolescents transitioning to adult care.

Secondary System Assessment

Data were collected in the OB/GYN clinic to support the need for a care transition intervention for postpartum women. The retrospective EMR review conducted between August 1, 2015, and October 31, 2015 revealed that approximately 600 patients were receiving perinatal care. The lack of complete and updated information in the EMR limited the amount of accurate information that could be extracted regarding the establishment of a PCP. It was not possible to differentiate between women who had established care with a PCP outside of the host system, and women who had no identified PCP. The number of women who had been referred to a PCP following OB care, also could not be determined.

Observation of practices in the OB/GYN department and conversations with the OB/GYN staff revealed that referrals were rarely made for postpartum women. There was no process in place to transition postpartum women to a PCP, or any other provider, following discharge from the obstetrician. The OB physician stated that he did not write referrals, but would casually suggest to women diagnosed with GDM that they visit a PCP in the future. Postpartum women with no current symptoms received no information or discussion regarding subsequent or preventive care with a PCP. Therefore, no referrals existed in the EMR for tracking purposes. The women's health nurse practitioner indicated she entered referrals for women with GDM into the EMR, but rarely for any other diagnosis or for preventive care. Considering that most of the postpartum visits were scheduled with the OB physician, referrals to a PCP were minimal. Neither provider routinely advised women to establish care with a PCP. Based on the limited information available in the EMR, it appeared as if no postpartum women (0%) returned to the care of a PCP within 2 months of childbirth, and less than 5% of women returned within 12 months.

Ideally, women should establish care with a PCP for routine care and management prior to a pregnancy, transition to the care of an obstetrician for the duration of the pregnancy, and transition back to the PCP following the pregnancy. In reality, however, many women of childbearing age do not seek medical care until there is a pregnancy (Beeckman, Louckx, & Putman, 2011). With no established or identified provider to assume care in the postpartum period, women are predisposed to poor outcomes that result from unmet health care needs and worsening conditions.

While attempting to determine the number of patients from the OB/GYN clinic who had established care with a PCP, it was noted that information technology (IT) restrictions prevented entry of the names of PCPs into the EMR for those outside of the host health system. As a result, no distinction could be made between patients with established PCPs outside of the health system and patients who had not established care with a PCP. In both cases, the field designated for data entry of the PCP was left blank. The lack of sufficient PCP contact information also prevented a summary of care being shared with the PCP following the patient's discharge from obstetrical care.

While only one primary care clinic was assessed in the practice assessment, this west side facility houses two primary care clinics, with six PCPs who verified the ability to receive and assume the care of postpartum women. The majority of women served in the OB/GYN clinic qualify for Medicaid during their pregnancies. Insurance carriers, including Medicaid, routinely pay for antepartum and postpartum care. Additionally, Medicaid provides perinatal medical coverage for up to 2 months following childbirth, thereby allowing a postpartum visit with the obstetrician, as well as a follow up visit with the PCP, if scheduled within 2 months of the delivery. Based on the observations of the microsystem assessment and of the practices specific

to the care delivery of postpartum women, the literature review, and several informal meetings with the practice manager, OB/GYN and primary care clinics providers, it was decided that there needed to be a process for the transition of postpartum women to the primary care department. Individual time was spent with staff that would be affected by or involved in the transition process. Their suggestions were incorporated into the intervention. The entire clinic staff voiced excitement over the proposed process improvement and the anticipated benefits.

Project Identification

The postpartum encounter offered an opportunity for health care workers to provide information about establishing care with a PCP, and assist patients in the transition process. This project aimed to improve the transition of postpartum women, ages 18 to 44, to a PCP within their health system. The primary objective was to increase the number of postpartum women who scheduled and attended the PCP appointment within 2 months of their delivery. The intervention included the development of patient information material, staff training, and a process for establishing care with a PCP. The process began upon the patient's arrival to the postpartum visit, and ended with the patient being evaluated by a PCP. This intervention aligns with ACOG recommendations for women to transition to a PCP within 1 year of delivery. There was a need to transition postpartum women to a medical provider who is best suited to manage their overall care. Addressing this issue was necessary to improve the quality of care provided to patients, improve outcomes, and reduce costs associated with delayed care. Specific benchmarks of the project included:

- By August 15, 2016, 90% of postpartum women would be referred to a PCP.

- The number of postpartum women who established care with a PCP within 2 months of childbirth would meet or exceed the national rate of 33% (John Hopkins Medicine, 2014).

Summary and Strength of the Evidence

Despite ACOG recommendations for PCP follow-up, the practice assessment revealed that no postpartum women (0%) returned to the care of a PCP in this health system within 2 months of childbirth, and less than 5% of women returned within 12 months. To determine if postpartum women show an increase in transition rates from the OB provider to a PCP if provided with information, a scheduled appointment, and a telephone reminder, a literature review was conducted. The terms “care transition,” “health transition,” “transitions of care,” “care coordination,” and “continuity of care” guided the search for peer reviewed articles written within the last 5 years. Care transitions are actions that ensure coordinated and continuous care of the patient through education of the patient and the health professionals (NTOCC, 2016). Study findings indicate that preparing for care transitions improves the knowledge of both patients and staff of the process, which subsequently improves the transition rate (McManus et al., 2015; Oluabunwa et al., 2013). McManus et al. (2015) conducted a study that prepared patients for transition by establishing an organizational policy that was posted, and required pediatric patients to transition to an adult provider at a set age. Implementation of the multifaceted intervention resulted in 50 systematic transitions, in which staff were more efficient in identifying patients in need of transition, and also performed better at coordinating the transition (McManus et al., 2015). Oluabunwa et al. (2013) performed a study in which transition planning began prior to the patient’s discharge from the hospital. The bundle strategy consisted of a designated patient “coach” to instruct and empower the patient to assume

responsibility for care decisions by providing education related to the patient's illnesses, need for follow-up with a PCP, red flags that indicate a worsening condition, and a phone call after discharge (Ohuabunwa et al., 2013). This strategy resulted in a 20% increase in PCP use (Ohuabunwa, 2013). Within an inpatient setting, both Ohuabunwa et al. (2013) and Clark et al. (2015) designated a person to meet with patients who were being discharged to provide information and answer questions, and to later serve as a contact person to speak with by phone. Clark et al. (2015) employed the use of care coordinators to interact with patients during visits, to answer questions, and subsequently place calls to follow-up on patient status and concerns between visits. This intervention decreased emergency department use by 20% (Clark et al., 2015). Tang, Fujimoto, and Karliner (2014) also employed a telephone call program, however they did so in an outpatient setting. Nurses in a primary care clinic placed calls to patients 72 hours after their hospital discharge. Their focus was to address any patient concerns, thereby avoiding unnecessary rehospitalizations. Seventy-six percent of patients had at least one concern, suggesting that a discharge call program may be beneficial for improving care coordination. To improve the return rate of women needing postpartum glucose screenings, Stasenko et al. (2011) provided written and verbal counseling at the patient's 38 week appointment. They found that women who received counseling regarding the importance of postpartum glucose screening were twice as likely to return than those who did not receive counseling (Stasenko et al., 2011). These studies indicate that providing patients with verbal and written information about care transitions while providing a contact person with whom the patients will interact, and utilizing telephone contact for coordination was effective in increasing patient adherence and attaining care transition success.

No studies were identified that specifically focused on the transition of women from obstetrical care to primary care. Stasenکو et al. (2011) emphasized the importance of continued glucose screenings for postpartum women with GDM, but they did not address their transition following obstetrical care. There is both a need for transition of care for postpartum women to primary care following discharge from obstetrical care, and a need to determine the optimal approaches to assist with this transfer.

Methods

Project Intervention

Based on the practice assessment of the primary care and OB/GYN clinics, multiple meetings with the OB/GYN staff and corporate leadership and a literature review, a plan was developed for the intervention project to transition postpartum women from the OB/GYN subspecialty clinic to a PCP within 2 months of delivery. The intervention incorporated suggestions from clinic staff. The issues identified in the assessment related to software limitations and the staff's failure to provide the patient with information regarding future health care needs, prompted a plan that included EMR modifications, which were to be performed by the IT department; the development of patient information material, which was created by the DNP student in collaboration with the OB/GYN and primary care providers; staff training, which was provided by the DNP student and a member of the OB/GYN staff; and a process for establishing care with a PCP, which was developed by the DNP student and staff from the OB/GYN and primary care clinics.

The project was implemented in the OB/GYN clinic of the west side health center in San Antonio. Postpartum women seen within the OB/GYN clinic at 4 to 6 weeks post delivery were the target population. The specific sample included the EMRs of all postpartum women seen in

the OB/GYN clinic between June 12, 2016 and August 15, 2016. There were 35 women seen during this time frame; 27 women met the inclusion criteria. The target sample included the EMRs of women who were between the ages of 18 and 44, and receiving postpartum care in the OB/GYN clinic. The exclusion criteria included the EMRs of women who were less than 18 years of age or greater than 44 years of age, those who desired to or had previously established care with a PCP outside of the host health system, and those who required continued care in the OB/GYN clinic for the expertise of the obstetrician/gynecologist. Females younger than 18 years of age received routine care in the pediatric clinic following discharge from the obstetrician. This population was excluded from this process in consideration of the pediatricians' preference for pediatric appointments, which were scheduled by the pediatric clinic. Women with PCPs outside of the host health system were excluded from this process because the DNP student did not have permission or access to extract data from EMRs maintained by these providers.

The project intervention involved EMR modifications, the development of patient information material, staff training, and a process for establishing care with a PCP. The development of patient information and staff training occurred prior to implementation of the transition process. Implementation of the transition process occurred on June 13, 2016, with results completed by September of 2016 (Appendix A).

EMR modifications. The IT department was to perform two EMR modifications on the existing software during the week of June 5, 2016. The first modification involved the inclusion of task boxes that could be checked to indicate that verbal instruction by the OB providers regarding the transition of care was provided, patient information materials were provided, assistance with selection of a PCP was provided, if needed, and the EMR was updated to reflect the current PCP information. The second EMR modification allowed for data entry of the names

and contact information of PCPs outside of the host health system. These two modifications were not performed. Approval to perform the EMR modifications had been received from the Director of IT in April of 2016, however the project was not assigned to the IT manager responsible for carrying out the task until June 9, 2016. This short notice did not allow time to complete the modifications prior to the June 12, 2016 implementation date.

Patient information material. The patient information material consisted of a handout regarding the transition of care to a PCP. Its purpose was to reemphasize the information that the patient received verbally from the OB providers during the postpartum visit. The handout was created by the DNP student, in collaboration an OB/GYN provider and a primary care provider. English and Spanish versions of the handout were approved by the Vice President/Director of Clinical Affairs during the week of June 1, 2016. The handout was to be distributed to all women attending the postpartum visit between June 13, 2016 and August 15, 2016 (Appendix B).

Staff training. While the DNP student was to provide two 30 minute training sessions during the week of June 1, 2016, one for the providers (physicians and NPs) and one for staff (LVNs, MAs, and front desk clerks) (Appendix C), multiple training sessions were provided to groups of three or four associates over the course of two weeks because of the varying availability of staff. The DNP student discussed the topic of care transitions, the proposed transition process, the roles and expectations of team members, and the patient handout (Appendix C). The DNP student, along with an associate from the OB/GYN clinic, also provided instructions on how to enter information into the EMR. Providers and staff that were unable to attend one of the group training sessions were provided with individual training prior to their participation in the intervention.

Process for establishing care with PCP. The process for establishing care with a PCP initially consisted of four steps:

- During the postpartum visit, the OB provider was expected to have a brief conversation with the patient regarding their transition of care to a PCP. The provider was expected to document this conversation within the patient's EMR by placing a check mark in the task box created for this verification.
- Following the patient's encounter with the provider, the LVN was expected to provide the patient with a handout to reinforce the information provided by the OB provider, assist the patient to select a PCP within the health system if no PCP had been established previously, and update the EMR to reflect the patient's choice of PCP. The LVN was expected to indicate that these tasks were completed by placing a check mark in the designated boxes located within the postpartum visit note in the EMR.
- At the completion of the postpartum visit, the front desk staff or MA was expected to schedule an appointment for the patient to establish care with a host health system PCP within 2 weeks of the current date, and no later than 60 days/2 months following the delivery date. An appointment with a PCP scheduled within 2 months of delivery ensures coverage for women receiving Medicaid benefits. Beyond the 2 month postpartum coverage period, women may apply for another form of Medicaid that will cover medical expenses and services unrelated to pregnancy. Women that do not meet the financial requirements to qualify for Medicaid, are offered medical services at a reduced rate that is based upon income and ability to pay.
- The day prior to the scheduled PCP appointment, an MA from the primary care clinic was expected to call the patient to remind her of the PCP appointment. Patients failing to

present for the PCP appointment, were to be called to reschedule the PCP visit. All calls/communication with patients are currently documented within the EMR. Therefore, no new process or additional documentation for these tasks was required.

Prior to project implementation, adjustments were made to the intended process for establishing care with a PCP because the task boxes were not created by the IT department as anticipated, and an organizational restructure occurred in the interim between the project proposal and the implementation of the project that changed the roles of the LVN, MAs, and front desk clerk within the clinics. The revised process expected that:

- During the postpartum visit, the OB provider was expected to have a brief conversation with the patient regarding transition of care to a PCP. The provider was expected to document the occurrence of this conversation in narrative form within the postpartum visit note in the patient's EMR.
- Following the patient's encounter with the provider, the MA was expected to provide the patient with a computer generated handout reinforcing the information discussed by the OB provider, ask the patient whether she had established care with a PCP, assist the patient in selecting a PCP within the host health system if no PCP had been established previously, and update the EMR to reflect the patient's choice of PCP. The MA was also expected to schedule an appointment for the patient to establish care with the selected PCP within 2 weeks of the current date, and no later than 60 days/2 months following the delivery date.
- The day prior to the scheduled PCP appointment, an associate from a newly formed department responsible for placing reminder calls to patients, were expected to remind the patient of the PCP appointment.

The DNP student was on-site each day during the first week of implementation to address any concerns with the project. In addition, the DNP student “huddled” with the involved team members each week to discuss successes and opportunities with the process.

Institutional Barriers/Facilitators

In general, the corporate leaders and front line staff were consistently supportive. The leadership team was eager to benefit from the QI effort, and the OB/GYN staff was motivated to improve the transition rate of their patients. Frequent communication with the organization’s corporate leaders facilitated the exchange of information needed to secure leadership support and obtain unanimous approval of the project proposal. However, it was discovered just prior to the project’s implementation that the tasks assigned to the IT department had not been relayed from IT leadership to the manager assigned to the project. The manager became aware of the request for EMR modifications only three business days prior to implementation of the project, and therefore lacked ample time to make the modifications. There were also staffing and role changes within the OB/GYN clinic, which required altering the project intervention immediately prior to implementation. The LVN was a primary component in proposed intervention, however the organization restructured the duties of the LVN, removing her from routine clinical contact with patients.

Plan for Project Evaluation

All records for postpartum women seen within the OB/GYN clinic between June 13, 2016 and August 15, 2016 were identified by a report generated from NextGen. Patients’ EMRs were accessed for documentation of patient receipt of transition of care information, PCP assignment, documentation of a scheduled PCP appointment, documentation of an appointment reminder, and documentation of attendance to the PCP appointment (Table 5). Each outcome

variable was assessed as either accomplished or not accomplished. A primary aspect of the intervention was the development of task boxes within the EMR that correlate with the required data fields and the outcomes listed. Each outcome variable was assessed for the percentage of change in procedures from the start of the intervention. The findings were compared to the 90% goal for patient referrals to a PCP, and the national rate of 33% for postpartum women returning to the care of a PCP within the year following childbirth.

Results

Of the 35 women who presented for postpartum care within the OB/GYN clinic between June 13, 2016 and August 15, 2016, eight women were excluded; two because they were under the age of 18, two because their insurance assigned them to a PCP outside of the host health system, and four because they required continued care in the OB/GYN clinic. The final sample consisted of 27 women ranging in age from 18 to 41, the majority being Hispanic (85%) and either on Medicaid or without any form of health insurance (Table 6).

Receipt of Care Transition Information

Prior to the intervention, no information was provided to patients upon discharge from obstetrical care regarding the transition of care to a PCP. The intervention resulted in 19 women (70%) receiving verbal information from the providers, 22 women (81%) receiving written information (Figure 1), 24 women (89%) receiving either verbal or written information, 17 women (63%) receiving both verbal and written information, and 3 women (11%) receiving neither verbal nor written information. The clinic employed three physicians who were responsible for verbally informing patients of the need to transition to a PCP. Physician A had 16 patients who were included in the intervention. Physician A documented counseling with 14 of these patients (88%). Physician B had 10 patients who were included in the intervention.

Table 5

Outcome Measures

Outcome Measure	Defined	Source	Implementation	Data Collection
Verbal and/or written care transition information	Patient information about primary care services and transition of care to a PCP	EMR- task box located on the postpartum visit note	June 12, 2016	August 16, 2016
Assigned PCP	Name of PCP as indicated by patient or assigned by staff during postpartum visit	EMR – Field within the “face sheet” of the patient record	June 12, 2016	August 16, 2016
Scheduled appointment with PCP	Documented appointment with PCP within computer system	EMR – patient upcoming appointments field	June 12, 2016	August 16, 2016
Patient appointment reminder	Appointment reminder call documented	EMR – under patient communications	June 12, 2016	August 15, 2016
Patient attended appointment	Documentation within medical record of patient encounter	EMR – documentation of patient encounter with PCP	June 12, 2016	August 15, 2016

Physician B documented counseling with five of these patients (50%). Only one of physician C's patients was included in the intervention. Physician C did not document counseling with this patient (0%).

Assistance with Obtaining a PCP and Scheduling a PCP Appointment

Of the 27 women in the sample, none had a PCP listed in the EMR and none reported previously establishing care with a PCP. Twenty-two women (81%) were assisted to select a PCP within the host system. All of these women were given an appointment with the PCP within 2 months of their delivery date (Figure 1). There were five women who were not assisted with

Table 6

Summary of Demographic Characteristics

Characteristic	Sample (n=28)
	Mean(SD)
Age	28 (6.90)
Parity	3 (1.85)
Ethnicity	
Hispanic	23 (85%)
Non-Hispanic	4 (15%)
Preferred Language	
English	19 (70%)
Spanish	8 (29%)
Insurance	
Medicaid	13 (48%)
HMO	2 (7%)
PPO	1 (4%)
None	11 (41%)

selection of a PCP, and subsequently did not receive a PCP appointment. The clinic intentionally did not schedule one woman with an appointment. The EMR indicated that her existing medical high bill was high and there was no record of payment. There was no documentation to indicate why the other four women were not assisted to select a PCP or schedule an appointment. These four women also did not receive a visit summary, which is routinely provided to every patient at the completion of the visit if the patient stops at the front desk prior to leaving the clinic.

Considering these findings, it is possible that these four women left the clinic without checking out with the front desk. The project goal for referrals from the OB/GYN clinic to a PCP was 90%. Eighty-nine percent of women were referred to a PCP within the host system following this intervention.

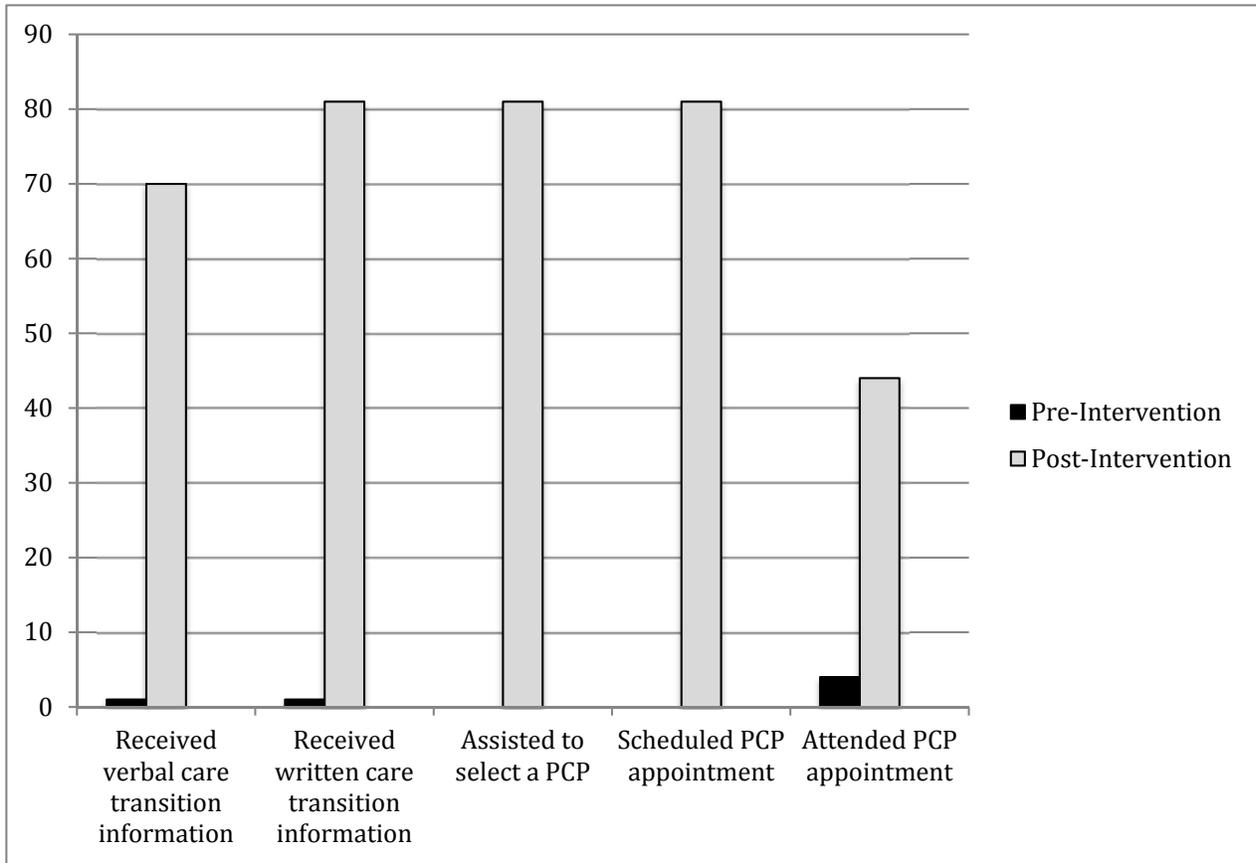


Figure 1. Outcome rates before and after intervention.

Appointment Reminder

Of the women who scheduled an appointment with a PCP, all (100%) received an appointment reminder in the form of a phone call. Four women are noted to have cancelled the PCP appointment at that time; one woman requested that the appointment be rescheduled for another day.

Attended PCP appointment

Twelve of the 27 women in the total sample (44%) attended the PCP appointment (Figure 1). When considering only the 22 women who scheduled an appointment, 55% established care with a PCP. The project goal was to exceed the national average of 33% for women who establish care with a PCP within 1 year of childbirth. These women established care with a PCP

within 2 months of childbirth.

All 12 women who transitioned to a PCP received a comprehensive examination in the primary care clinic. Review of the EMRs revealed that 10 of the 12 women (88%) were diagnosed by the PCP with an acute or chronic illness, or had abnormal lab values suggestive of an underlying medical condition. Diagnoses documented at the PCP visit included hypertension, diabetes, hyperlipidemia, pain, urinary tract infection, constipation, and depression. As hypothesized, the diagnoses discovered in postpartum women discharged from the OB/GYN clinic were consistent with those of the general population of patients presenting to the primary care clinic. Without the transition intervention, these women would have been discharged from care with undiagnosed and/or untreated medical conditions that were likely to worsen over time.

Discussion

This quality improvement project addressed barriers within this health system that prevented the identification of women in need of a PCP, and proposed an intervention to not only inform women about the transition of care to a PCP, but to assist them in their transition. This intervention, which was similar to Ohuabunwa's (2013) study that included patient education, instruction regarding the need for PCP follow-up, and a telephone call after discharge, resulted in a 39% increase in PCP use compared to Ohuabunwa's findings which resulted in a 20% increase in PCP use. Unlike the study by Stasenکو et al. (2011), which found that postpartum women receiving verbal and written counseling regarding glucose screening were twice as likely to return for follow-up, the receipt of verbal and written information for this project could not be solely contributed to the rates of follow-up with a PCP.

The OB/GYN providers were not consistent in speaking with patients about transitioning to a PCP and/or documenting that this counseling was performed. New processes may take time

to incorporate into long-standing routines. The MAs, however, were more reliable in providing the written instructions. Because of their diligence, some of the women who did not receive verbal instruction from the provider still received written instructions, assistance with selecting a PCP, and a PCP appointment.

Practices of one of the OB providers caused confusion for the MAs and the patient, and delayed the transition to primary care. The provider instructed patients on the transition to a PCP during the visit, but also asked them to return to the OB/GYN clinic for another appointment in the near future. The MAs were unsure of the patients' official discharge from OB care, but proceeded with scheduling a PCP appointment. The EMRs revealed that when the appointment reminder call was placed, patients cancelled the PCP appointment because they had been asked to return to the OB/GYN clinic. Further, women were being asked to return for services that could have been provided by the PCP.

The value of the intervention was recognized by 2 of the 3 OB/GYN providers who have continued to refer postpartum women to a PCP. The MAs are less aware of their importance in the transition of patients to primary care. As discovered in the clinic assessment, the MAs believe that patient outcomes are a direct and exclusive result of the providers' care. The MAs are, therefore, not as diligent in performing tasks that are less visible or infrequently monitored. This is evident in the directive to update the EMR with the name of the patients' PCP. Despite the efforts to identify patients in need of a PCP and differentiate those patients from patients with a PCP outside of the host system, there has been little to no improvement in updating the EMR to accurately reflect this information.

Limitations

The intervention was limited by what could be accomplished without the creation of task boxes for ease of documentation, and a narrative field for documenting PCP that were outside of the host system. These omissions placed an additional workload on staff responsible for documenting transition of care efforts within the EMR.

The organization's restructuring of roles within the clinic left only the MAs to perform the intervention tasks that were originally assigned to the LVN. The MAs were able to provide patients with the patient information material, but were not as qualified to answer any questions.

During the clinic assessment, the MAs relayed that they were already overworked. Initially, there was buy-in to the intervention and its potential benefit for the patient, but soon after implementation, the MAs' attitudes toward participation were not a good. The MAs were able to incorporate the intervention tasks into their routine, but required frequent reminders and persuasion to maintain the behaviors required for the intervention until the end date.

Recommendations

Initiating discussions about postpartum care and transitioning should begin prior to the discharge visit, which is poorly attended. There were approximately 126 women who were eligible to return for a postpartum visit between June 12, 2016 and August 15, 2016, yet only 35 women attended.

Future studies could address the issues for the women who were provided a PCP, yet still elected not to attend their appointments. Suggestions for meeting the needs of these women may include scheduling the PCP appointment on the same day as the baby's appointment, and assisting women to access the transportation services available to Medicaid subscribers.

Task boxes, as originally proposed, are recommended for the ease provided to staff when documenting participation in the intervention, as well as the ease with which the evaluation of adherence can be assessed.

Implications for Practice

This project offers insight for subsequent efforts focused on the transition of patients from one provider or setting to another. The Donebedian quality framework and health care model were used to guide the project. The model states that the structure of an organization influences the processes within the organization, which in turn affects patient outcomes (Donebedian, 1988). The clinic assessment revealed practices that prevented the identification of women in need of services offered by a PCP, and the lack of a process for transitioning women to a PCP. By addressing these issues, postpartum women gained access to general medical care, to include preventive services, which will ultimately improve health outcomes (McMorrow, Kenney, & Goin, 2014).

The host system expressed a desire for a process to transition pediatric patients to adult primary care. This intervention can easily be modified for that purpose.

Summary

Women that establish a relationship with a PCP for preventive care and management of acute and chronic conditions prior to pregnancy, simply resume care with their PCP following pregnancy. Many women of childbearing age have not established care with a PCP, and therefore have no medical provider to address health care needs beyond 6 weeks of delivery when medical concerns require attention. In these situations, the postpartum visit becomes the opportune time to identify women in need of a PCP, and assist them with transitioning to the care and services offered in the primary care setting.

This transition of care intervention improved access to general medical care for postpartum women. The bundled interventions used were found to be effective, and can be easily modified for replication in any specialty clinic desiring a transition process.

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Appendix A

PROJECT TIMELINE

2016																												
Key Activities	Apr.	June					July					August				September				October				November				
	May	1	5	12	19	26	3	10	17	24	31	7	14	21	28	4	11	18	25	2	9	16	23	30	6	13	20	27
Scheduled staff training																												
Obtain approval of patient material																												
Patient material incorporated into EMR																												
Staff Training - Transition process																												
Staff Training – Software use																												
Implementation																												
Team huddle																												
Intervention Checklist																												
Request report of postpartum visits																												
Data collection																												
Data Analysis																												
Document Findings																												
Present Results to HS1 Team																												
Present Results to HS1 Leadership																												

Appendix B

PATIENT INFORMATION MATERIAL

Today you attended the
POSTPARTUM VISIT

This is the last check-up for your recent pregnancy.

YOUR FUTURE HEALTH CARE NEEDS

PRIMARY CARE CLINIC

You will visit your Primary Care provider (PCP) for general health symptoms and conditions.

The PCP will:

- identify and treat your medical conditions
- provide preventive care services to keep you well, such as cancer screening, flu shots, and early detection of heart disease or diabetes
- teach you healthy lifestyle choices
- refer you to medical specialists when necessary.

If you do not have a PCP, we will assist you to find one today.

This is the perfect time to set up an appointment with a PCP to establish a relationship for your future health care needs.

OB/GYN CLINIC

You will visit your OB/GYN provider for:

- a future pregnancy,
- concerns related to the breasts, uterus, cervix, vagina, menstrual cycle, or birth control, and
- the annual well woman visit that may include a PAP or breast exam

Appendix C

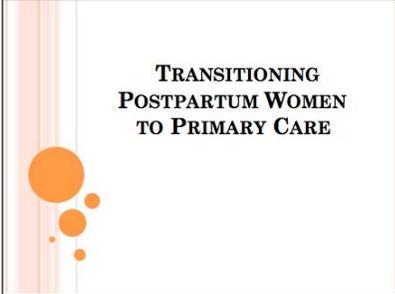
STAFF TRAINING SCHEDULE

<p>Session 1 Orientation for providers</p>	<p>Session 2 Training for staff</p>	<p>Session 3 Training for providers/staff</p>
<p>Includes: OB/GYN physician OB/GYN NP Primary Care physician Primary Care NP</p>	<p>Includes: OB/GYN Clinic LVN, MAs, Front Desk Clerk Primary Care Clinic MAs</p>	<p>Includes: OB/GYN physician OB/GYN NP OB/GYN Clinic LVN, MAs, Front Desk Clerk Primary Care Clinic MAs</p>
<p>Provided by: DNP Student</p>	<p>Provided by: DNP Student</p>	<p>Provided by: DNP Student and IT</p>
<p>Topics:</p> <ul style="list-style-type: none"> ▪ Transition of care ▪ The transition process ▪ Roles and expectations ▪ Review of patient information material 	<p>Topics:</p> <ul style="list-style-type: none"> ▪ Transition of care ▪ The transition process ▪ Roles and expectations ▪ Review of patient information material 	<p>Topics:</p> <ul style="list-style-type: none"> ▪ Review of Staff Roles ▪ Changes to the EMR ▪ How to Enter PCPs ▪ How to Document Completion of Tasks

Appendix D

STAFF TRAINING CURRICULUM

5/1/16



**TRANSITIONING
POSTPARTUM WOMEN
TO PRIMARY CARE**

CARE TRANSITION

The purposeful and planned movement of a patient between providers based on the patient's health care needs.

(National Transition of Care Coalition, 2016)



RECOMMENDATION

The American Colleges of Obstetrics and Gynecology (ACOG) recommends that women follow-up with the obstetrician within four to six weeks of delivery, and return to the care of a PCP within one year of delivery.

(Pai-Jong, Nakashima, Yamamoto, Ngo, & Kaneshiro, 2011)

Nationwide, less than 50% of postpartum women return to the obstetrician for the postpartum visit, and 33% transition to the care of a PCP within one year.

(John Hopkins Medicine, 2014)



WHY TRANSITION POSTPARTUM WOMEN TO A PCP?

- 94% of women report physical health problems within the first 6 months after childbirth.
(Cooklin, Amir, Jarman, Callmane, & Donath, 2015)
- Women diagnosed with GDM, HDP, or depression require continued monitoring.
(Ehrenthal et al., 2014; Stassenko et al., 2011; Walker et al., 2010)
- To resume preventive care services
Immunizations, flu vaccines, cancer screening, early detection of heart disease and diabetes
(McMorrow, Kenney, & Goin, 2014)



GDM, HDP, AND DEPRESSION

- Women with GDM are 7 times more likely than women with normoglycemic pregnancies to develop Type 2 diabetes
(Stassenko et al., 2011)
- Women with HDP are 4 times more likely to develop hypertension, doubling their risk for cardiovascular disease
(Ehrenthal et al., 2014)
- Depression is experienced by 1 in 5 mothers
(Morgan & Young, 2012)
It disproportionately affects low-income women from ethnic minority groups
(Barakat, Martinez, Thomas, & Handley, 2014)



With no transition process in place,
<5% of postpartum women returned for a PCP visit in this health care system



5/1/16

TRANSITION PROCESS

1. Conversation with OB provider regarding transition of care
2. Handout from OB LVN to reinforce provider conversation, and assistance with PCP selection
3. A PCP appointment at the front desk
4. A reminder call from the primary care MA

TRANSITION PROCESS - ROLES AND EXPECTATIONS

THE OB PROVIDER

1

During the Postpartum Visit

- Provide all women with brief information regarding the importance of establishing care with a PCP.
- Document that the information was provided by placing a check mark in the box created within the EMR.

TRANSITION PROCESS - ROLES AND EXPECTATIONS

THE OB LVN

2

After the patient sees the provider

- Provide all women with a handout.
- Ask if the patient has selected a PCP.
- Assist the patient to select a PCP if one is needed.
- Update the EMR to reflect the patient's PCP
- Document that these tasks were completed by placing a check mark in the boxes created within the EMR

PATIENT HANDOUT

The handout form includes a header with a photo of a doctor and patient, and the text: 'Thanks you attended the POSTPARTUM VISIT. This is the last check-up for your recent pregnancy.' Below this are two main sections: 'YOUR FUTURE HEALTH CARE NEEDS' and 'GYN/CX CARE'. The 'YOUR FUTURE HEALTH CARE NEEDS' section asks for the patient's Primary Care Provider (PCP) and lists reasons for needing a PCP, such as to provide and treat medical conditions, discuss pregnancy and delivery, and to help with health insurance. The 'GYN/CX CARE' section lists items to discuss with the OB/GYN provider, including future pregnancy, delivery, breast, cervical, uterine, menstrual health, birth control, and a general health check-up.

TRANSITION PROCESS - ROLES AND EXPECTATIONS

OB/GYN FRONT DESK or MA

3

At the end of the Postpartum Visit

- Schedule an appointment with a PCP. The appointment must be within 2 weeks of the current date, and no more than 2 months/60 days after the patient's delivery date.
- Verify that the patient's phone number is correct in the EMR.
- Explain where the PCP office is located within the facility.

TRANSITION PROCESS - ROLES AND EXPECTATIONS

PRIMARY CARE MA

4

The day before the PCP appointment

- Call the patient to remind her of the PCP appointment.
- Document the communication in the EMR.

The day after a missed PCP appointment

- Call the patient to reschedule the PCP appointment.
- Schedule the appointment within 2 months/60 days of the delivery date.
- If no appointments are available within the 2 months of the delivery date, ask the PCP for permission to schedule the patient as a walk in.
- Document the communication in the EMR.

5/1/16

GOAL:

An improvement from <5% to at least 33% of postpartum women will return for the PCP visit.

QUESTIONS / COMMENTS



References:

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Appendix F

HOST SYSTEM APPROVAL LETTER



April 13, 2016

University of the Incarnate Word Institutional Review Board:

I am aware of C. Jnett Matthew' presence and efforts to complete her Doctorate of nursing (DNP) project in CommuniCare Health Center's west campus location. The project is titled, A Systems Intervention for Transitioning Postpartum Women's to Primary Care. It intends to increase the number of postpartum women who establish care with a primary care provider. The project involves software modification, educational information, and a medical record review. CommuniCare Health Centers does not have an Institutional Review Board, therefore this letters confirms my support of this project.

A handwritten signature in brown ink, appearing to read "Paul Nguyen", is written over a large, faint, light blue watermark of the CommuniCare logo.

Paul Nguyen, MHA
President and CEO