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Improving Care of Women Experiencing a Pregnancy

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Improving Care of Women Experiencing a Pregnancy

by

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Abstract

The purpose of the Doctor of Nursing Practice (DNP) project was to provide evidence-based staff education at a pregnancy resource center to increase staff/patient engagement and communication by implementing a clinical practice change and use of a DNP student-developed discharge summary referral form (DRF) to assist with assessing patient's needs, evaluating access to services and utilization of medical care and health promotion services. The overall aim of this project is to increase care with medical follow-up and seek to address improving engagement and communication with patients during their care and after discharge from the Pregnancy Resource Center (PRC). The major objectives of the project were to evaluate if the implementation of a DRF improved pregnant women's access to or utilization of medical care services or resources, and to identify barriers to patients' utilization of medical care services. Kolb's Model guided the quality improvement project that utilized pre-intervention surveys in comparison to post-intervention survey results in addition to discharge follow-up data from the Pregnancy Resource Center to evaluate the referral process before and after the implementation of a DNP student developed DRF following staff post educational training. The discharge referral form is divided into four sections: 1) demographics & recommended time frame for follow-up after discharge, 2) recommendations of follow-up care based on preliminary findings, 3) medical follow-up care outcome, and 4) discharge summary follow-up & well-check call. The DNP student observed for any difference in pregnant women's medical care follow-up and access to/utilization of medical care services after a clinical practice change with staff education and implementing the discharge form. Additionally, the DNP student evaluated potential causes of pregnant patients not utilizing medical care services. Data analysis showed that

there was a statistical difference of a change of 1.43 and 47.3 percentage in staff engagement and communication concerning follow-up after staff engagement and communication educational training and the implementation of a DNP student-developed patient referral form. The project's data revealed the primary reason pregnant women are not utilizing medical care services is due to financial barriers ranging from unemployment to an absence of insurance, undecided about pregnancy progression, and adversities in the organization, practices, and atmosphere of prenatal/postnatal services themselves. The initial assumption of the DNP student was that repeat pregnancy and underutilization of medical care services were not readily accessible to the pregnant population. However, the results of the quality improvement project refuted this assumption as medical care services were found to be available to women experiencing unplanned pregnancies. However, the services were often not utilized due to a lack of insurance and a breakdown in communication and the referral process. The use of evidence-based approaches can improve discharge, coordination, and transition for continuation of care. Doctor of Nursing Practice (DNPs) can address challenges to healthcare access and utilization of available resources by supporting pregnant patients' navigation through the complex healthcare system.

Keywords: Keywords used to perform database searches for the proposal were staff engagement, unplanned pregnancy, reproductive health, family planning, discharge planning, and transitional care.

Section I

Problem Recognition

Many individuals and couples desire to plan the time and spacing of pregnancy for social and economic reasons. Some individuals and couples, however, may become pregnant unexpectedly. An unexpected pregnancy is generally considered to be either one that was unplanned or mistimed. According to Americas Health Rankings North Carolina unexpected pregnancy reports at 26.6% (2020).

A rural local health department State of the County Health Report completed in 2020, data reveals Teen Pregnancy Rates are 30.9 (North Carolina Teenage 28.6). In addition, an Infant Mortality rate of 30.34 (North Carolina 20.3) (Stanly County Health Department, 2021). Deciding about an unexpected pregnancy is personal and regardless of the outcome of a decision, women with unexpected pregnancies need support, care, and advice for whatever the resolution of their pregnancy. Accurate information to make an informed decision and support helps to resolve uncertainty regarding an unexpected pregnancy. To address this public health issue the pregnancy resource center (PRC) offers free services valued at $355.00 with no requirements for anyone who is facing an unexpected pregnancy. Services include confidential counseling, health assessment, abdominal and vaginal ultrasound, a parenting program, baby supplies and abortion recovery. Enrollment in the programs, allows the PRC to further assist individuals who decide to continue their unexpected pregnancy by offering prenatal care, parenting classes & homework, weekly appointments, and the shopping boutique. Parents of the child are eligible to participate until the child is 15 months old. The PRC is one of the initial entry points into the health care system, the first point of contact for early assessment, and

provides preliminary screenings to refer women for the continuation of care after discharge and early services to prevent adverse maternal and perinatal outcomes (Johnson-Mallard et al., 2017).

The goal of the PRC is to improve engagement and communication, increase participation in health prevention programs, and appropriately refer women to help prevent recurring unexpected pregnancies. However, reports reveal referrals are sporadic, recurrent appointment no-shows, and no response to reminder calls continue to impede growth of the programs. As of September 27, 2021, there are 65 active participants out of 100 enrolled. Utilization of such resources the PRC provides has been shown to improve mortality and morbidity rates outcomes by increasing medical compliance, support for attending prenatal appointments, and increasing referrals to other programs available in the community offered at the local hospital or county health department (North Carolina Public Health Services, 2016).

Problem Statement

There is a need to assess unexpected pregnancy patients' comprehensive needs, access to or utilization of health care services, and engage vulnerable individuals with strategies to improve health inequalities and outcomes. The need of improving staff/patient engagement and communication to improve patient follow-through for the continuation of medical care and follow-up of pregnancy progression or the resolution of a patient's pregnancy after discharge.

Population/Community

The unmet need for contraception leads to 7.3 million unexpected adolescent pregnancies annually and is a medical cost of $11 billion. Most unexpected pregnancies

occur from not using contraception or from not using it consistently or appropriately. A disproportionate number of unexpected pregnancies occur among younger, unmarried, minority, less-educated, and lower-income women ("Rankings", 2020). This increases the chances of an unexpected pregnancy that may pose certain health risks to both mother and baby. Whether the pregnancy is planned or unexpected, and whether the woman views her pregnancy positively or negatively will determine when care is attained and the type of care. Chyongchiou et al. (2019), explores how later entry into care and fewer visits are associated with an unexpected pregnancy and, similarly, with negative views of a current pregnancy. Women who view their pregnancies negatively may delay prenatal care while they decide whether to continue the pregnancy. To help address the needs of individuals to prevent an unexpected pregnancy, achieve pregnancy or have a healthy pregnancy it is essential to understand their pregnancy intentions and reproductive life plan goals ("Rankings", 2020). A reproductive life plan may help identify reproductive health care needs that include contraceptive services, pregnancy testing, counseling, and timing or spacing ("Rankings", 2020). Studies have shown that community based maternal child programs have successfully reduced unexpected pregnancies, infant mortality, and morbidity rates through outreach strategies.

The PICOT problem statement developed by the DNP project leader is: following staff engagement and communication educational training (P), how effective is implementing a new process for a discharge follow-up plan to perform a well-check call within 3-7 days of discharge using a student developed discharge follow-up form (I) compared to utilizing the existing process (C) effect quality of care, and medical care

follow-up regardless of pregnancy progression or the resolution of an unexpected pregnancy (O) in thirty days (T)?

Population: Pregnancy Resource Center staff: clinic director, nurse director, LEAP (Learn, Earn and Parent) program director, client advocate, registered nurse, secretary, and volunteers.

Intervention: Educational course: student developed Discharge Follow-up form and plan to monitor a patient's progress of care after being referred to appropriate care providers for pregnancy progression or the resolution of an unexpected pregnancy.

Comparison: Pre and post survey after implementation of the Discharge Follow-up Plan.

Outcome: An increase in staff/patient engagement and communication, continuity of care after discharge from the Pregnancy Resource Center, increase in referrals to the Pregnancy Resource Center programs, and increase in providers initiating family planning reproductive goals, a decrease in no show appointments, and recurring, unexpected pregnancies.

Section II

Literature Review

Literature Review

The reviewed articles were accessed using the Gardner-Webb library databases MEDLINE, CINAHL Plus, Wiley Online Library, Journal of the American Medical Association (JAMA), Family and Society Studies, Health Source, Ovid, Science Direct, and Google Scholar and ProQuest. Searches were limited to unplanned pregnancy studies from 2016 to the present and in the English language. Combination key words included unplanned and unintended pregnancy, family planning and reproductive health, engagement and communication, discharge planning, coordination of care, and transition of care. Searches were limited to family planning, discharge planning, and coordination of care. The search excluded editorial articles, correspondence articles, expert opinion, and pediatric literature. The included studies used were quantitative, qualitative, observational, cohort, longitudinal, and retrospective studies.

The evidence level for all research articles were categorized as level III and were given a quality rating of "good"- "high quality" by following The John Hopkins Nursing Evidence Based Practice Model and Guidelines (Philbrick, V. 2013). The strengths and limitations were also clearly defined in each study and some of the studies did a thorough analysis of possible recommendations to remedy some of the limitations presented.

Holt et al. (2017), discussed feelings about an unexpected pregnancy are routinely, but often minimally, addressed, and providers tended to frame discussions that may obscure more complex distinctions between mistimed and unexpected pregnancies. Additionally, during this time, is an overlooked opportunity to discuss family planning.

Kimport et al. (2016) findings demonstrate underutilization of pregnancy-options counseling and high demand for parenting materials and services identify unmet needs among women and caregivers of young children utilizing pregnancy resource centers. Likewise, Agbeno et al. (2019), supports the higher the individual's level of contraception knowledge, the more able women are to make an informed decision about options, family planning and contraception. Similarly, Safinejad et al. (2020), advocates for healthcare staff to adjust their relationships with pregnant women based on their actual health literacy since poor health literacy places pregnant women who are of low economic stasis or medically underserved at increased risk for difficulties with communication, following instructions, and adverse outcomes. Chyongchiou et al. (2019) investigations revealed follow-up of mentoring programs for adolescents paired with an adult provided positive perceptions, how to face daily life challenges, prevented subsequent pregnancies and were able to attain employment. Woods et al. (2019), telephone follow-up interventions can decrease difficulties with meeting patient information and communication needs, improve self-management and follow-up appointment attendance. This was in contrast to the study by Greysen et al. (2017), showing oftentimes, patients who had high levels of perceived engagement and satisfaction at discharge still encountered unanticipated problems for which they needed assistance to correct. Nagai et al. (2019), concluded that opportunities to discuss the patient's level of support for an unexpected pregnancy are missed about fifty percent of the time, in addition to rarely mentioning adoption or abortion as pregnancy. In comparison, Amour et al. (2021), research revealed there were sixty percent missed opportunity for prevention of unplanned pregnancies and suggests a need for further inclusion of family planning counseling into the antenatal care and postnatal care visits.

Comparably, Ewunetie et al. (2018) suggest further study is recommended in the rural community to establish awareness about timely initiation of first antenatal care visit and family planning utilization to prevent unplanned pregnancy.

Literature Summary

Literature reveals gaps in improving care of women experiencing a pregnancy. There are several recommendations for further research and opportunities to improve processes, planning, education and communication for pregnant women or unplanned pregnancies. The results of the literature review support the DNP project in multiple areas. Chang et al. (2018), identified a lack of evidence on impact of interventions to support effective communication between maternity care staff and healthy women. Studies from Agbeno et al. (2019), suggest there is a high probability the options counselling given at a facility is not adequate and there is a need to assess the type and depth of counselling services provided for pregnant women. Amour et al. (2021), recommends further need to enhance integration of family planning into the continuum of care in order to increase access to family planning. Commonalities shared among several of the studies include counseling services provided to pregnant women in health clinics is necessary to inform health policy and program decisions. Agbeno et al., Amour et al., Bedaso et al. (2021), & Ewunetie et al. 2018, research reveals areas of opportunities in health care and the political level that exist to decrease unexpected pregnancy are discussion of family planning, future birth control, in-depth follow-up regarding social support and psychological risks, patient preferences and behaviors, and provider-related impacts associated with pregnancy.

Section III

Needs Assessment

To improve care for women experiencing a pregnancy, referral strategies, and evidence-based process change can improve program awareness and available services. Improving communication, collaboration, and workflow efficiencies among potential and existing patients, the obstetricians, pediatricians, substance abuse clinics, local hospitals, faith-based organizations, and the health department may have a significant impact on continuation or care, discharge follow-ups, appointments, and referrals. As part of an efficient discharge plan, a comprehensive screening or assessment is vital for pregnant patients and women at risk or medically underserved. The plan helps to optimize receiving necessary health care services. A well-developed discharge plan helps to introduce the patient, share concerns of their status, and its effects on their wellbeing or medical needs. There is a need for an evidence-based discharge plan including follow up to help strengthen the focus on patient-centered care and recommend best possible care for individualized services.

Section IV

Goals

Healthy People 2030 includes goals to improve pregnancy planning and decrease the proportion of unintended pregnancies from 43% to 35.6% (Office of Disease Prevention and Health Promotion [ODPHP], n.d.). The goal of this project is: 1) improve engagement and communication for continuity of care, 2) improve awareness of programs and services, and 3) continuation of care to improve participation rates in health care programs before, during and after pregnancy. Improve patient follow-through for the continuation of medical care and follow-up of pregnancy.

Objectives

The objective outcome of this project is by the end of the education, compared to baseline assessment 1) an increase in staff engagement and communications to educate patients on risk factors, identifying appropriate referrals to health care programs based on preliminary findings, discharge education, and follow up after discharge, 2) An increase in referrals from clinics and local hospital to the pregnancy resource center parenting programs, 3) Increase of Discharge Medical Care Referral Follow-up forms returned to the Pregnancy Resource Center, and 4) An increase in the number of abortion minded vulnerable women attending initial appointment to utilize health care & preventative programs.

Mission Statement

This quality improvement project will help improve the health outcomes for women experiencing a pregnancy. Its purpose is to provide staff with an evidence-based discharge plan to help follow-up with patients who were referred for pregnancy or the alternative

resolution of an unexpected pregnancy after discharge from the PRC. Also, the purpose is to increase referrals and utilization of appropriate health care programs before, during and after pregnancy to improve overall health outcomes. The fundamental mission of this project is promoting continuity of community health care and decreasing unexpected pregnancies by connecting individuals to health care programs before, during and after pregnancy.

Section V

Theoretical Underpinnings

The theoretical underpinning for this project is Kolb Experiential learning theory. Kolb championed the Experiential learning theory, drawing on the work of other psychologists and theorists. The Experiential learning theory focuses on the idea that adults are shaped by their experiences, and the best learning comes from making sense of experiences (McLeod, 2017). Instead of reading or memorizing, experiential learning is a hands-on and reflective learning style. Adult learners can utilize this theory and learn by doing, instead of just hearing or reading about information. Hands on experiences, role-play, concept mapping and problem or inquiry based are all part of experiential learning which can occur in the classroom or clinic (McLeod, 2017). According to McLeod (2017), the Kolb Experiential Learning Theory views learning in four-stages: concrete learning, reflective observation, abstract conceptualization, and active experimentation. The theory treats learning as a holistic process where one continuously creates and implements ideas for improvement.

This theory can help address the discharge process, referral to medical care, and low participation rates of health care services and programs. According to Kolb's model a concrete experience occurs when the learner encounters a new experience or reinterprets an existing experience. Such as during class education and training, staff learn about carrying out the project, in a way they have not seen before, discharge referral process, discharge form and follow-up calls using communication tools such as Teach-back, Ask Me 3, using open-ended questions, the Re-Engineered Discharge (RED) Toolkit, associated barriers, and required consistency for a successful transition of care. Reflective

observation occurs when staff reflect, absorb material and the methodology of the discharge process to determine what was learned from the process, what they observe and their feelings about the process. Abstract conceptualization occurs when staff read and comprehend the discharge process, indicators for referral, how to follow-up, associated complications, and required nursing care when a patient experiencing an unexpected pregnancy is discharged from the clinic. This is generally where staff form new ideas or modify current abstract ideas. Finally, active experimentation occurs when staff applies the new ideas to see if there are any modifications in the experiences and can schedule patients at appropriate referral care services before being discharged from the clinic. The prior concrete experience, reflection, and comprehension allow the students to relate the concepts learned during class about the discharge referral process to what they are experiencing with the patient in the clinic setting. Outcomes of an unexpected pregnancy are impacted by the concrete knowledge, transition experience, preventative, and therapeutic interventions. Staff can use the knowledge gained from the concrete experience to increase referral services, follow-up and improve referral outcomes for any future patient experiencing an unexpected or repeat unexpected pregnancy for whom they provide services.

Section VI

Work Planning

The problem identified is no current discharge process in place to follow-up on patients experiencing an unexpected pregnancy. With the implementation of a new discharge follow-up form and a follow-up well check call within seven days of discharge to referral care services this project will show an increase in the number of vulnerable women attending initial appointments, an improvement in no show appointments and utilization of referral services. The project management tool used to detail the timeline for this problem and project task is the Gantt chart (shown in Figure 2). This DNP project will not incur any new additional cost to the clinic. All necessary resources and staff are available as part of the normal course of operations within the Pregnancy Resource Center. Indirect cost will consist of supplies of paper, pencils, and use of the copier machine. The clinic breakroom will be utilized for project education. Time allotted for project problem surveys and educational class is one hour and thirty minutes.

Section VII

Evaluation Plan

Measurement of evaluation outcomes and the success of this quality improvement project will be quantitative measurements using surveys completed by staff before and after implementation. Ongoing self-assessment and facility educational training is an effective strategy to enhance and broaden staff understanding of how to improve processes, engagement, and communication with individuals experiencing a planned or unexpected pregnancy and various aspects of their beliefs and life experiences.

This project focused on discharge follow-up which highlights the importance of communication and patient education during and after the initial encounter. Staff will be surveyed about necessary time to encourage and support patient's transition, satisfaction about available services, programs, and experiences of care provided.

Follow-up will be examined post survey to determine if this theory is making a difference if a successful discharge process and method of follow-up was achieved. This project will help implement a standardized process for referrals, follow-up, and improvement in advertising to increase awareness of programs along with supporting the program's sustainability (Donnelly & Kirk, 2015).

The project will help identify and address gaps in staff engagement and communication, knowledge concerning scheduling patients, referring a patient to services and follow-up. To continue addressing the identified problem this project supports implementing a discharge referral form clinics will need to return by fax or email to the Pregnancy Resource Center and available educational resources embedded with QR technology. QR code-based technology is a free program for reading and decoding by

camera-equipped smartphones. It can assist with easy and quick access to education, promote positive behavior change, and increase awareness of available health care resources. An additional benefit of utilizing QR technology is to improve program identification and available resources offered at the Pregnancy Resource Center and in the community. The fundamental goal is referral for continuation of care before discharge, during the transition and follow-up in a timely manner after referral to services for continuity of care. The fundamental objective is individuals continuing care regardless of pregnancy outcome, increasing utilization of health care services and reducing contributing factors of an unexpected pregnancy.

Section VIII

Program Implementation

After literature review, the best practice selection is to provide staff with information to create a discharge packet applying concepts from the Re-Engineered Discharge Toolkit. The discharge process is complex; however, the toolkit helps to address the complexities of multiple competing needs such as individualized patient care, communication across the healthcare team, referral of care during transitions, time constraints, and health literacy concerns. The discharge packet is used to assist with improving engagement and communication, providing resources to Help Prevent Barriers to Health, Family Planning Education handouts and a One Key Question. The One Key Question encourages care providers to routinely ask women of childbearing age if they would like to become pregnant in the next year. Under the One Key Question initiative, if the answer is "no," providers can assist women with a plan to prevent an unplanned pregnancy. If the answer is "yes," providers can connect women with pre-conception care to help promote a healthy pregnancy. These pregnancy intention screening tools are very effective and widely used. In addition to the discharge packet, a fillable PDF discharge summary referral form was created to assist with preliminary screenings and communicating the identified needs of patients seeking service at the pregnancy resource center. Both tools provide an opportunity to improve communication and care for pregnant and non-pregnant women seeking services at the pregnancy resource center.

Threats and Barriers

The discharge planning process is multifaceted and plays a crucial role in the transition of care. A common barrier in the discharge process are delayed planning and

gaps in communication. Women often do not seek medical attention until several weeks into the first trimester, even though the developing fetus is most vulnerable 17 to 56 days after conception (CDC, 2021). The first prenatal visit should take place six to eight weeks of pregnancy or earlier if high risk. Compared to mothers who had a planned pregnancy, unintended pregnancies were also associated with poorer pregnancy outcomes and 49.7% of those with an unintended pregnancy did not use any method of birth control.

The healthcare team should aspire to meet the unique communication, cultural, and familial needs of all patients. Women seeking services or experiencing a pregnancy will have improved outcomes with timely, appropriate referral strategies and follow-up when communications are effective and clear. Transitioning from one clinic to another can be challenging and overwhelming as patients experiencing a pregnancy become responsible for their care coordination. Review of these events demonstrated the need for an effective communication strategy between the PRC, patients, and clinics providing medical follow up. The PRC is religiously affiliated and willing to provide the family planning education handouts in an envelope without initial review and discussion with the patient. Effective communication among staff and the patient is a core concept of engagement and healthcare delivery before, during and after pregnancy. Communication serves the dual purpose of providing an opportunity to relay important information and about task-related concerns. It creates a culture that enables a continuous learning environment within the clinic and continues to the target clinic enabling improved and more efficient care.

Additional barriers to this project exist with limited staff, patients who have no insurance, are not established with a provider and of low socioeconomic status. Pregnant patients can apply for Medicaid however the approval process is typically forty-five to

ninety days. This barrier will impact the return of the discharge summary follow-up form and may create additional workload for staff.

Delayed medical follow up and gaps in communication is a barrier to encouraging patient/provider conversation concerning reproductive health and family planning which is directly associated with patient outcomes such as potential morbidities, mortalities and repeat unexpected pregnancies. Long-term evaluation of outcomes was limited due to the project's time constraints. This quality improvement project perhaps adds to the emerging national data regarding unplanned pregnancies, and the limited research on care coordination and transition from in an outpatient setting and the impact of pregnant women utilizing the services of pregnancy resource centers.

Implementation Summary

A feasible solution for improving engagement and communication was to implement standardized practices and procedures. The PRC identified the lack of follow-up appointment coordination after discharge results to an individual not knowing what, who, and when to follow up especially when feeling overwhelmed or experiencing an unexpected pregnancy. This project helped the PRC work together and share health information to communicate preliminary findings, coordinate care, provide appropriate discharge education, timely follow-up, and opportunities to prevent future unplanned pregnancies. In addition, scheduling an appointment prior to discharge was implemented in order to attempt to improve timely access to care and empower patients to take an active role in their own healthcare.

According to staff feedback and utilizing the project, they identified during implementation: the Discharge Medical Follow up form required minor revisions.

Revisions addressed concerns to prevent misinterpretation of continuation of medical care. The PRC provides the patient with a diagnosis of pregnancy. The clinic policy refers patients to another physician or medical health care provider for care. Revisions to the discharge form communicate the PRC does not provide continuation of care and notification of termination of care. The second area of focus utilizing the project addressed completing and sending the discharge form to patients' preferred provider. The plan for the discharge form is to complete during the assessment and email to the patients' provider while in the clinic during discharge. A collaborative resolution was made to email the form following patient's establishment with a health care provider.

Section IX

Interpretation of Data

Results

A pre-survey (see Appendix A) and post-survey (see Appendix B) design was used for this project utilizing descriptive statistics. The data was calculated using Spearman's correlation test. The correlation is between staff follow-up and patient follow through. A Test for Significance of Differences Between Two Proportions was conducted to evaluate staff engagement and communication concerning staff follow-up and patient follow through. Based on the pre- and post- survey results, staff/patient engagement and communication improved and increased overall. Education increased the importance of understanding the significance of initial patient contact and providing meaningful education. Staff created a discharge packet with handouts from the educational session. There was a notable increase in answered follow-up well check calls after discharge. Timely outpatient follow-up is promoted as a key strategy to improve outcomes. Data revealed the preferred timeframe for a follow-up well check call after discharge is within seven days compared to three days. Collaboration to establish medical follow-up after discharge and referral utilizing the discharge summary follow-up of medical care form improved.

Interpretation of Results

The discharge summary medical referral form (Appendix C) study measurements are engagement and communication with patient, follow-up well check calls, recommendation for medical follow-up, outcome of pregnancy, and family planning education.

Data analysis showed there were statistical difference of a change of 47.3 percentage in staff engagement and communication after an educational session and the implementation of a discharge patient referral form. It is important to note the sample size was small pre-survey (*n-8*) and post-survey (*n-7*), however communication increased, and outcomes increased implication of the project.

The results show a mean of 4.71 a (0.16) change and -3.30 percent of change concerning patients understanding the importance of attending follow-up appointments (see Appendix D). It is essential to note research supports implementation of electronic forms tend to simplify timely document sharing, demonstrate a reduction in documentation time, maximize speed and value in comparison to completing paper forms. The results show a mean of 4.13, a change of 7.36 % for three-day follow-up well check calls compared to a mean of 4.43, change of 10.71% for seven-day follow-up well check calls. The results show a mean of 3.86, a change of 18.68% for question concerning receiving family planning education about contraceptive methods helping to prevent unplanned pregnancies. The results show a mean of 3.57, a change of 36.05% for question concerning patients who have access to full range of contraceptive methods can help prevent unplanned pregnancies. The results show a mean of 4.43, a change of 47.3% to engaging and communicating with patients have improved overall (see Appendix G).

Pre-presentation Results and Data

As part of an efficient discharge plan, staff understanding the significance of a comprehensive screening or assessment is vital for pregnant patients, women at risk or the medically underserved. Pre-survey responses (n-8) reveal staff believes the current process of discharge planning is evidence-based results a mean of 4.25. Engagement and

communication show a mean of 4.25. Providing family planning education mean of 3.25. Three-day follow-up well check calls mean of 4.13. Seven-day well check call a mean of 4.0. Medical care follow-up a mean of 4.88.

Post-presentation Results and Data

Post-survey responses (n7) revealed the following: staff considers the current process of discharge planning is evidence-based show a 4.43 mean, change of a 4.20%. Engagement and Communication show a mean of Education mean of 4.43, change of 4.20%. Providing family planning education a mean of 3.25, change of 18.68%. Results reveal unanswered phone calls decreased (see Appendix E). Three-day follow-up well check calls 4.43, change of 7.36%. Seven-day well check call mean 4.43, change of 10.73%. Medical care follow-up mean 4.71, change of -3.48%. The noted decrease in medical care is significant for process approvement. Research supports implementation of electronic forms tend to simplify timely document sharing, a reduction in documentation time, maximize speed and value in comparison to completing paper forms. Results reveal the project implementation answered the PICOT question, in addition to established goals and objectives (see Appendix G). Five additional questions were phrased differently to gather more in-depth and valuable information (see Appendix F). Results show a response of 3.43 to patients having access to different contraceptive information decreased the risk of unplanned pregnancy, engagement and communication with patients improved overall indicate 4.43, a follow-up well check call at least three-days after discharge has improved patient utilization of health programs 4.14 and a follow-up well check call at least seven-days after discharge has improved patient utilization of health programs

Utilization and Reporting of Results

Implication of Practice

Ineffective staff/patient engagement and communication is a missed opportunity to help prevent health care disparities, future unplanned pregnancies, morbidities, and mortalities. The effort to improve engagement and communication should be intertwined into the framework of the organization and aligned with a quality improvement system. Effective discharge practices and processes that highlight key aspects of patient needs have shown to improve patient outcomes. The implementation of the discharge summary medical care follow-up form increased communication and could be used in a variety of settings. For this project, further research is required to inform the development of processes for return of the discharge summary for medical care follow-up form. Future recommendations to meet with community stakeholders, such as the Community Health Assessment Advisory Committee to discuss goals and objectives for utilizing the discharge summary referral form will help increase form return to the Pregnancy Resource Center. Also, plans for future dissemination by sharing with stakeholders at upcoming meetings.

Limitations

Limitations of this project are low return rates on staff surveys. An additional consideration is limited staff to implement interventions and schedule follow-up care while the patient is in the clinic. Also, collaborating with specialty services for medical care follow-up to return the discharge form five business days after the patient is seen for the continuation of medical care follow-up was challenging in part to patients were pending Medicaid/insurance approval and not established with a provider. This project has plenty

of suggestions and a lot of different strategies to improve communication and care of pregnant women. Due to these limitations, it would be beneficial to implement this project again over a longer period of time.

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Appendices

Appendix A

Pre-Survey

Pre-survey
Engagement & Communication: Discharge, Follow-up and Future Family Planning

Completing this pre-survey is optional and should take approximately 10 minutes. Your responses and data will be collected anonymously. Insert completed survey in the locked box located in a central location labeled "DNP Project Survey". Participant cannot withdraw once anonymous pre-survey is inserted in the locked box as data is in a de-identified state. Thank you for your participation.

Instructions: Please rate the following questions using a scale of 1 to 5, where 1 means Strongly disagree and 5 means strongly agree.

Questions	Strongly Disagree	Somewhat Disagree	Neutral	Agree	Strongly Agree
	1	2	3	4	5
1. The current process for discharge and transition of care for our patients are based on most recent evidenced-based practice and standards of care.					
2. Patients are provided factual, non-judgemental information to make an informed decision concerning treatment options.					
3. Nurses have a vital role in patients' future referral compliance.					
4. Nurses must impress on the patient the need for follow-up care.					
5. Nurses can help decrease repeat unplanned pregnancies.					
6. Nurses are an important voice in a patient's care before they transition to target referral service.					
7. Client advocates are the final voice in a patient's life before they transition to target referral service.					
8. Staff can help this clinic achieve the goal of monitoring unplanned pregnancy outcomes.					
9. Healthcare staff should be aware hormonal and nonhormonal contraceptive methods are available for women to prevent unplanned pregnancies.					
10. Patients must understand the importance of attending follow-up appointments.					
11. Patients need to understand the risk of unplanned pregnancy.					
12. Patients experiencing an unplanned pregnancy are less likely to receive prenatal care.					
13. Patients experiencing an unplanned pregnancy may have a higher risk for postpartum depression and mental health problems later in life.					
14. Patients need to receive a well-check call at least 3 days of discharge from clinic.					
15. Patients need to receive a well-check call within 7 days of discharge from the clinic.					
16. Patients who have had an unplanned pregnancy are at high risk for a repeat pregnancy.					
17. Patients who have access to the full range of contraceptive options decreases the risk of unplanned pregnancies.					
18. Patients receiving family planning education about contraceptive methods can help prevent unplanned pregnancies.					
19. Unplanned pregnancies rates are highest among young women, low-income and non-white women.					
20. The discharge planning should include future family planning in discharge education.					

Appendix B

Post-Survey

Post-survey
Engagement & Communication: Discharge, Follow-up, and Future Family Planning

Completing this post-survey is optional and should take approximately 10 minutes. Your responses and data wil be collected anonymously. Insert completed survey in the locked box located in a central location labeled "DNF Project Survey". Participant cannot withdraw once anonymous post-survey is inserted in the locked box as data is in a de-identified state. Thank you for your participation.

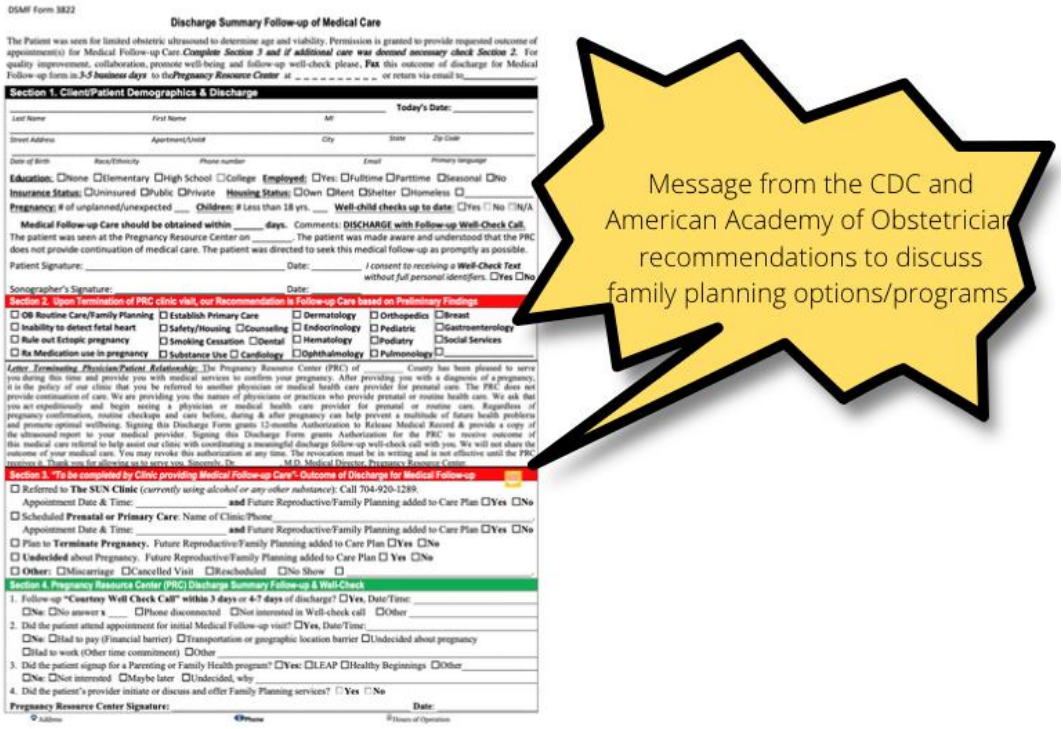
Instructions: Please rate the following questions using a scale of 1 to 5, where 1 means Strongly disagree and 5 means strongly agree.

Questions	Strongly Disagree	Somewhat Disagree	Neutral	Agree	Strongly Agree
	1	2	3	4	5
1. The current process for discharge and transition of care for our patients are based on most recent evidenced-based practice and standards of care.					
2. Patients are provided factual, non-judgemental information to make an informed decision concerning treatment options.					
3. Nurses have a vital role in patients' future referral compliance.					
4. Nurses must impress on the patient the need for follow-up care.					
5. Nurses can help decrease repeat unplanned pregnancies.					
6. Nurses are an important voice in a patient's care before they transition to target referral service.					
7. Client advocates are the final voice in a patient's life before they transition to target referral service.					
8. Staff can help this clinic achieve the goal of monitoring unplanned pregnancy outcomes.					
9. Healthcare staff should be aware hormonal and nonhormonal contraceptive methods are available for women to prevent unplanned pregnancies.					
10. Patients must understand the importance of attending follow-up appointments.					
11. Patients need to understand the risk of unplanned pregnancy.					
12. Patients experiencing an unplanned pregnancy are less likely to receive prenatal care.					
13. Patients experiencing an unplanned pregnancy may have a higher risk for postpartum depression and mental health problems later in life.					
14. Patients need to receive a well-check call at least 3 days of discharge from clinic.					
15. Patients need to receive a well-check call within 7 days of discharge from the clinic.					
16. Patients who have had an unplanned pregnancy are at high risk for a repeat pregnancy.					
17. Patients who have access to the full range of contraceptive options decreases the risk of unplanned pregnancies.					
18. Patients receiving family planning education about contraceptive methods can help prevent unplanned pregnancies.					
19. Unplanned pregnancies rates are highest among young women, low-income and non-white women.					
20. The discharge planning should include future family planning in discharge education.					

Questions	Strongly Disagree	Somewhat Disagree	Neutral	Agree	Strongly Agree
21. Patients who have access to different contraceptive information decreases the risk of an unplanned pregnancy.					
22. A follow-up well check call at least 3 days after discharge has improved patient utilization of health care programs.					
23. A follow-up well check call within 7 days after discharge has improved patient utilization of health care programs.					
24. Collaboration with patients to establish medical follow-up after discharge and referral has improved.					
25. Engaging and communication with patients have improved overall.					

Appendix C

Student Developed Discharge Summary Follow-up of Medical Care Form



DSMF Form 3822

Discharge Summary Follow-up of Medical Care

The Patient was seen for limited obstetric ultrasound to determine age and viability. Permission is granted to provide requested outcome of appointment(s) for Medical Follow-up Care. ***Complete Section 3 and if additional care was deemed necessary check Section 2.*** For quality improvement, collaboration, promote well-being and follow-up well-check please, **Fax** this outcome of discharge for Medical Follow-up form in **3-5 business days** to the ***Pregnancy Resource Center*** at _____ or return via email to_____

Section 1. Client/Patient Demographics & Discharge

Last Name First Name MI **Today's Date:** _____

Street Address Apartment/Unit# City State Zip Code

Date of Birth Race/Ethnicity Phone number Email Primary language

Education: ☐None ☐Elementary ☐High School ☐College **Employed:** ☐Yes: ☐Fulltime ☐Parttime ☐Seasonal ☐No

Insurance Status: ☐Uninsured ☐Public ☐Private **Housing Status:** ☐Own ☐Rent ☐Shelter ☐Homeless ☐_____

Pregnancy: # of unplanned/unexpected ___ **Children:** # Less than 18 yrs. ___ **Well-child checks up to date:** ☐Yes ☐No ☐N/A

Medical Follow-up Care should be obtained within _____ days. Comments: **DISCHARGE with Follow-up Well-Check Call.**

The patient was seen at the Pregnancy Resource Center on _____. The patient was made aware and understood that the PRC does not provide continuation of medical care. The patient was directed to seek this medical follow-up as promptly as possible.

Patient Signature: _____ Date: _____ *I consent to receiving a **Well-Check Text** without full personal identifiers.* ☐**Yes** ☐**No**

Sonographer's Signature: Date:

Section 2. Upon Termination of PRC clinic visit, our Recommendation is Follow-up Care based on Preliminary Findings

☐ **OB Routine Care/Family Planning**	☐ **Establish Primary Care**	☐ **Dermatology**	☐ **Orthopedics**	☐**Breast**
☐ **Inability to detect fetal heart**	☐ **Safety/Housing** ☐**Counseling**	☐ **Endocrinology**	☐ **Pediatric**	☐**Gastroenterology**
☐ **Rule out Ectopic pregnancy**	☐ **Smoking Cessation** ☐**Dental**	☐ **Hematology**	☐**Podiatry**	☐**Social Services**
☐ **Rx Medication use in pregnancy**	☐ **Substance Use** ☐ **Cardiology**	☐**Ophthalmology**	☐ **Pulmonology**	☐_____

Letter Terminating Physician/Patient Relationship: The Pregnancy Resource Center (PRC) of _____ County has been pleased to serve you during this time and provide you with medical services to confirm your pregnancy. After providing you with a diagnosis of a pregnancy, it is the policy of our clinic that you be referred to another physician or medical health care provider for prenatal care. The PRC does not provide continuation of care. We are providing you the names of physicians or practices who provide prenatal or routine health care. We ask that you act expeditiously and begin seeing a physician or medical health care provider for prenatal or routine care. Regardless of pregnancy confirmation, routine checkups and care before, during & after pregnancy can help prevent a multitude of future health problems and promote optimal wellbeing. Signing this Discharge Form grants 12-months Authorization to Release Medical Record & provide a copy of the ultrasound report to your medical provider. Signing this Discharge Form grants Authorization for the PRC to receive outcome of this medical care referral to help assist our clinic with coordinating a meaningful discharge follow-up well-check call with you. We will not share the outcome of your medical care. You may revoke this authorization at any time. The revocation must be in writing and is not effective until the PRC receives it. Thank you for allowing us to serve you. Sincerely, Dr. _____ MD, Medical Director, Pregnancy Resource Center

Section 3. *"To be completed by Clinic providing Medical Follow-up Care"*- Outcome of Discharge for Medical Follow-up.

☐ Referred to **The SUN Clinic** (*currently using alcohol or any other substance*): Call 704-920-1289.
Appointment Date & Time: _____ **and** Future Reproductive/Family Planning added to Care Plan ☐**Yes** ☐**No**

☐ Scheduled **Prenatal or Primary Care**: Name of Clinic/Phone_____
Appointment Date & Time: _____ **and** Future Reproductive/Family Planning added to Care Plan ☐**Yes** ☐**No**

☐ Plan to **Terminate Pregnancy.** Future Reproductive/Family Planning added to Care Plan ☐**Yes** ☐**No**

☐ **Undecided** about Pregnancy. Future Reproductive/Family Planning added to Care Plan ☐ **Yes** ☐**No**

☐ **Other:** ☐Miscarriage ☐Cancelled Visit ☐Rescheduled ☐No Show ☐_____

Section 4. Pregnancy Resource Center (PRC) Discharge Summary Follow-up & Well-Check

1. Follow-up **"Courtesy Well Check Call" within 3 days** or **4-7 days** of discharge? ☐**Yes**, Date/Time: _____
☐**No**: ☐No answer x ____ ☐Phone disconnected ☐Not interested in Well-check call ☐Other _____
2. Did the patient attend appointment for initial Medical Follow-up visit? ☐**Yes**, Date/Time: _____
☐**No**: ☐Had to pay (Financial barrier) ☐Transportation or geographic location barrier ☐Undecided about pregnancy
☐Had to work (Other time commitment) ☐Other _____
3. Did the patient signup for a Parenting or Family Health program? ☐**Yes:** ☐LEAP ☐Healthy Beginnings ☐Other_____
☐**No**: ☐Not interested ☐Maybe later ☐Undecided, why _____
4. Did the patient's provider initiate or discuss and offer Family Planning services? ☐ **Yes** ☐ **No**

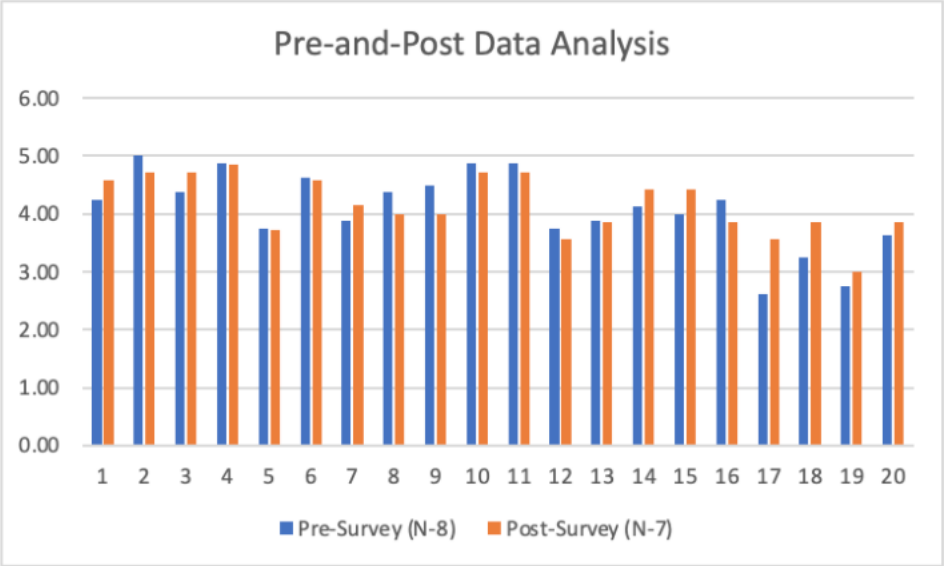
Pregnancy Resource Center Signature: _____ **Date:** _____

Address Phone Hours of Operation

Message from the CDC and American Academy of Obstetrician recommendations to discuss family planning options/programs

Appendix D

Pre-and Post-Data Analysis



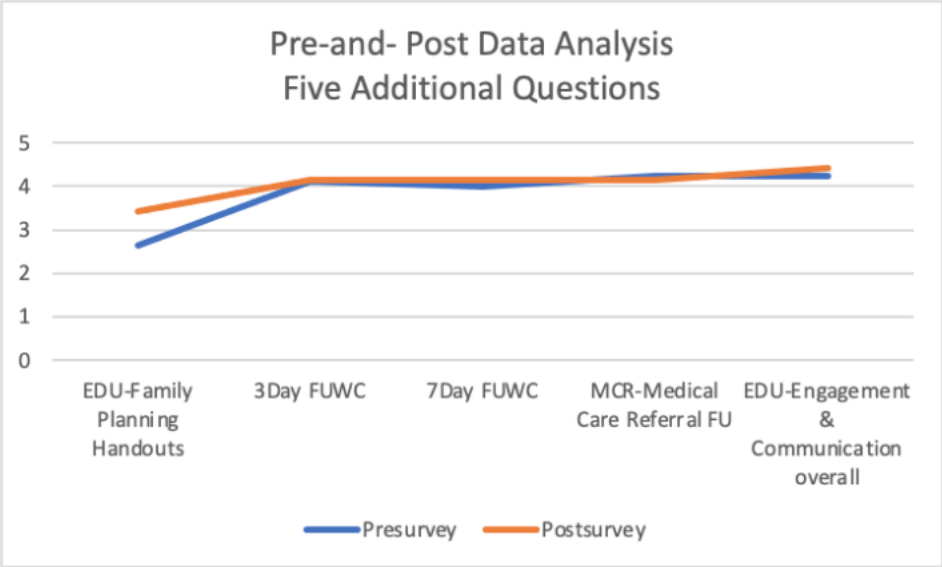
Appendix E

Pre-and Post-Project Implementation- # of Unanswered Follow-up Well Check Calls

	Pre-Project Implementation February 7- March 7	Post-Project Implementation March 8- April 8
Appointments	32	22
Followup Well Check Calls after discharge	28	19
Answered Follow-up Well Check Calls after discharge	26	17
No Answer Follow-up Well Check Calls after Discharge	6	2

Appendix F

Post-Data Analysis of Five Additional Questions Comparing Education Packet-Family Planning/Resources, Follow-up Calls, Medical Care Referral Follow-up & Education-Staff Engagement & Communication Overall



Appendix G

Pre- and Post-Data Analysis of Project Objectives and Goals