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## **New mothers' perceptions of their first encounter with a health care provider**

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NEW MOTHERS' PERCEPTIONS OF THEIR FIRST ENCOUNTER  
WITH A HEALTH CARE PROVIDER

being

A Thesis Presented to the Graduate Faculty  
of the Fort Hays State University in  
Partial Fulfillment of the Requirements for  
the Degree of Master of Science in Nursing

by

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# NEW MOTHERS' PERCEPTIONS OF THEIR FIRST ENCOUNTER

## WITH A HEALTH CARE PROVIDER

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Fort Hays State University, 2008

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### ABSTRACT

Since its genesis, health care has been developing and evolving to meet the needs of the population it serves. Hospital length of stay after childbirth has progressively decreased over the past 29 years initially in response to public pressure to reduce the medical aspect of childbirth. More recently, the decrease in length of stay has accelerated in response to cost-containment pressures (Eaton, 2001).

This investigation examined new mothers' perceptions of their maternal role attainment through their initial interaction with a health care provider. Ramona Mercer (1990) stated in *Parents at Risk* that there is a pressing need to facilitate early parent-infant interactions and promote parental competence. Mercer recognized maternal role attainment as an ongoing, not an instantaneous, process. The variables selected were the health care provider and mothers' satisfaction.

The convenience sample consisted of new mothers who delivered at the facility where the researcher is employed. To be included in the sample set, mothers must have been seen by a pediatrician, family practice physician, or the advanced registered nurse practitioner (ARNP) clinic, must have been discharged at the same time as the newborn, and must have had a first encounter with a health care provider within the first week of the newborn's life.

Research question one was, “Is there a statistically significant difference in new mothers’ perception of satisfaction, based on type of health care provider (ARNP or physician)?”

This investigation looked at the difference between mothers’ perception of satisfaction based on the type of health care provider they had for their first infant visit. This was calculated with an independent *t*-test  $t(99) = -1.514, p = .104$  using a sample size of ( $n = 52$ ) for the ARNP ( $M = 79.15, SD = 9.48$ ) and ( $n = 49$ ) for the physician ( $M = 75.96, SD = 11.67$ ).

The second research question was, “Is there a statistically significant difference in new mothers’ perception of maternal role attainment based on the type of health care provider (ARNP or physician)?”

This investigation looked at the difference between a mothers’ perception of role attainment based on the type of health care provider she saw on her first infant visit. This was calculated using an independent *t*-test [ $t(99) = -.607, p = 0.634$ ] with a sample size of ( $n = 52$ ) for the ARNP ( $M = 8.44, SD = 1.42$ ) and a sample size of ( $n = 49$ ) for the physician ( $M = 8.27, SD = 1.51$ ).

The third research question was, “Is there a statistically significant relationship between new mothers’ satisfaction and role attainment?”

This investigation looked at the relationship between mothers’ satisfaction and role attainment. The correlation was calculated using a Pearson correlation coefficient ( $r = .18, p = .038$ ) with a sample size ( $N = 101$ ).

The fourth research question “Is there a statistically significant difference in new mothers’ perception of satisfaction based on the age of the mother?”

To compare mothers' perception of satisfaction based on her age an independent *t*-test [ $t(99) = 0.35, p = 0.48$ ] was run on the age of the mothers based on two groupings: group one (18-28 years,  $n = 61$ ) and group two (29-46 years,  $n = 40$ ). Group one ( $M = 4.33, SD = 0.62$ ) and group two ( $M = 4.29, SD = 0.55$ ). There was no significant statistical difference between new mothers' perception of satisfaction based on their age.

The fifth research question "Is there a statistically significant difference in new mothers' perception of satisfaction based on the ethnicity of the mother?"

An independent *t*-test was run between two groups due to the low sample size of any given ethnicity other than Caucasian. The two groups were Caucasian ( $n = 70, M = 72.39, SD = 10.23$ ) and other ( $n = 31, M = 74.97, SD = 9.65$ ). There was no difference in new mothers' perception of satisfaction based on ethnicity.

This investigation found no significant difference among the research questions one, two, four and five, but did find a significant relationship on research question three. This may suggest that the type of provider may not be the question but rather the relational aspect of the encounter. Further investigation from a qualitative perspective would allow a richer analysis of the journey to maternal attainment.

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## CHAPTER 1 – INTRODUCTION

Women giving birth to their first child have historically found their social support through family and friends (Rubin, 1975). In the past, most women lived nearby their families, providing a strong support structure to help shape their understanding of motherhood. Today, however, women often do not live near families and do not always have a strong support system as they become mothers. In addition, the length of stay in a hospital has significantly dropped from five to seven days to 24 to 48 hours (American Academy of Pediatrics, 2001; Leahy-Warren, 2004). These factors greatly impact how a mother integrates her new role into her personhood (Meighan, Bee, Legge, & Oetting, 1998). There is minimal research examining how this significant cultural and medical shift impacts a new mother's perception of her maternal role and how easily she adjusts to her new responsibilities.

This investigation will examine maternal satisfaction in role identity from the perspective of care that is provided in the first weeks of birth. When a new mother goes home with her newborn less than 36 hours post delivery, she has not fully understood the change that has occurred (Rubin, 1975). Many things can influence how she sees herself in the maternal role, such as her and the newborn's traits, her social network, her knowledge of basic newborn care including feedings, and her interactions with her health care provider (Leahy-Warren, 2004; Rubin, 1975). Her first visit with a health care professional can potentially impact her perception of herself in the new role of motherhood. How that health care

provider communicates to a new mother can provide either positive or negative feedback that influences the well-being of the mother and her baby (Mercer & Walker, 2006).

### Statement of the Problem

Since the 1990s, mothers and their babies are being discharged at a much earlier time post-delivery than in the past. Mothers who have a normal vaginal delivery are typically discharged 24 to 48 hours following delivery (American Academy of Pediatrics Committee on Fetus and Newborn, 2004). This has decreased the amount of time new mothers are observed by experienced health care professionals, as well as the amount of professional support provided, which newly delivered patients need to develop mothering skills. The first post-discharge encounter with the health care provider thus assumes a higher importance.

The research available at this time examines the importance of the maternal-infant relationship to infant development and maternal role satisfaction (Horowitz, Logsdon & Anderson, 2005) and to maternal role transition (Rogan, Shmied, Barclay, Everitt, & Wyllie, 1997). Patient satisfaction from a provider discipline perspective has also been researched examining the perceived quality of care (Marsh, 1999; Turner & Pol, 1995; Urden, 2002) as well as communication style (Pinkerton & Bush, 2000). Limited research has explored the encounter

differences related to the time element, relationship building, gender differences, and holistic versus illness viewpoints based on the model of care delivery.

Turner and Pol examined the broad scope of quality measurement, which included patient satisfaction. They noted that patients perceived a paternalistic environment in their first encounter with health care services. This environment created a feeling of intimidation that resulted in a dichotomy between their perceived desire and the actual experience. The ultimate objective of patient satisfaction as a quality indicator should include measurements to quantify quality and should also explain the reasons for good or bad quality in such a way that care processes can be improved.

Gordin and Johnson (1999) studied how technology could impact a family focused environment within the maternal-child care arena. They stated that family centered care emphasizes the relational aspects of care and, in many cases, is redefining the nature of these relationships. Through this relationship, care becomes collaborative and focused on the family. This allows the mother to become empowered rather than dependent on the health care professional as the gatekeeper of information. Families should also be part of the educational opportunities for health care providers. Learning from childbearing women and their families allows the health care provider to understand the needs as well as the experiences of their patients and families.

Lieu et al. (1988) interviewed 800 mother-newborn pairs and concluded that the new model of perinatal care that included routine follow-up visits for newborns at a hospital based postpartum care center improved clinical outcomes and maternal satisfaction for low-risk mothers and newborns without increasing costs. Due to the move from family care into a more specialized model of care, mothers and their infants are cared for by different health care providers postnatally. If the mother has a health concern immediately after having her infant, she must make an appointment with her health care provider. If the infant has a health problem immediately after delivery, the mother must schedule a separate appointment for the baby with his or her health care provider. In health care, primary post-partum care is separating each member of the mother-child dyad rather than continuing a global relationship and assessment of the dyad as a whole.

Although much research has been done on adult patient satisfaction from a global perspective, very little has been done in the maternal-child environment. The Pew Health Professional Commission and the Fetzer Institute formed a joint task force of nationally known scholars to examine how the relationship of the health care provider to the patient influences the healing process. The task force stated:

“It is a medium for the exchange of all forms of information, feelings, and concerns, a factor in the success of therapeutic regimens, and an essential

ingredient in the satisfaction of both patient and practitioner. For patients, the relationship with their provider frequently is the most therapeutic aspect of the health care encounter” (Kowalski et al., 1996).

Current medical practices often overlook this relationship, resulting in a less therapeutic and less satisfying experience for the patient.

Researchers for the Picker Institute proposed eight dimensions of patient-centered care including:

1. information and education,
2. access to care,
3. physical comfort,
4. involvement of family and friends,
5. continuity and secure transition between health care settings.

Three components to their dimensions of patient-centered care directly impact new mothers. The three components are:

1. respect for the patient’s values, preferences and expressed needs,
2. emotional support to relieve fear and anxiety,
3. coordination of care (Davis, Schoenbaum & Audet, 2005).

These three components are essential for new mothers as they gain autonomy within their maternal role. As a woman enters motherhood for the first time, she is often fearful, emotional, and dealing with feelings of inadequacy. The mother must explore how her new maternal role is going to fit into her existing

relationships, culture, and daily activities. Furthermore, she needs consistent information from all health care providers to strengthen her knowledge and understanding of her new identity. Unfortunately the current health care paradigms do not take into consideration the importance of these factors, resulting in a less satisfying patient experience and hampering a new mother's acquisition of maternal identity.

#### Purpose of the Investigation

The purpose of this investigation is to determine if there is a significant difference in new mothers' perception of satisfaction and maternal role attainment dependent on the type of health care provider (advanced registered nurse practitioner [ARNP] or physician) seen at their first postnatal appointment. New mother will be defined as any mother who has recently given birth. This can be either a first time mother (primigravida) or a mother who has given birth before (multigravida). Data collected can assist health care providers in developing models of care that could potentially improve new mothers' satisfaction as well as their progress toward maternal role attainment.

#### Significance of the Investigation

The data from this investigation may allow deeper understanding of the impact of a new mother's first encounter with her medical professional and to facilitate health care providers as they seek to improve their practice. It will also allow a better understanding of the needs of new mothers during that first

encounter by focusing on her perspective. All mothers who had recently given birth were part of this research allowing for the recognized changes that can occur in a mother's environment, level of support, economic status, and other physical or emotional status between pregnancies. These changes can greatly impact mothers' ability to attain maternal role identity.

### Theoretical Framework

The theoretical framework of this investigation was based on nursing theorist Virginia Henderson's definition of nursing (Alexander et al., 1998), and Ramona Mercer's Maternal Role Attainment, which was based on her mentor Reva Rubin's study of the Cognitive Style in Pregnancy (Tomey & Alligood, 1998).

Virginia Henderson stated that "the unique function of the nurse is to assist the individual, sick or well, in the performance of those activities contributing to health or recovery (or to peaceful death) that he would perform unaided if he had the necessary strength, will or knowledge, and to do this in such a way as to help him gain independence as rapidly as possible" (Alexander et al., 1998, p. 102). Henderson saw the nurse-physician relationship as being two separate entities. A care plan which would implement the physician's orders should be formulated by the nurse and patient together with nurses not blindly following physician orders but rather acting as a conduit between the physician orders and the patient's needs. Henderson's theory fits well with the role of an

ARNP, as they have the ability to diagnose and provide health management to a specific population, such as new mothers. The ARNP and the mother can work together towards a goal, that goal being defined by the patient. From this perspective, the holistic care provided by an ARNP can support new mothers' need for affirmative support.

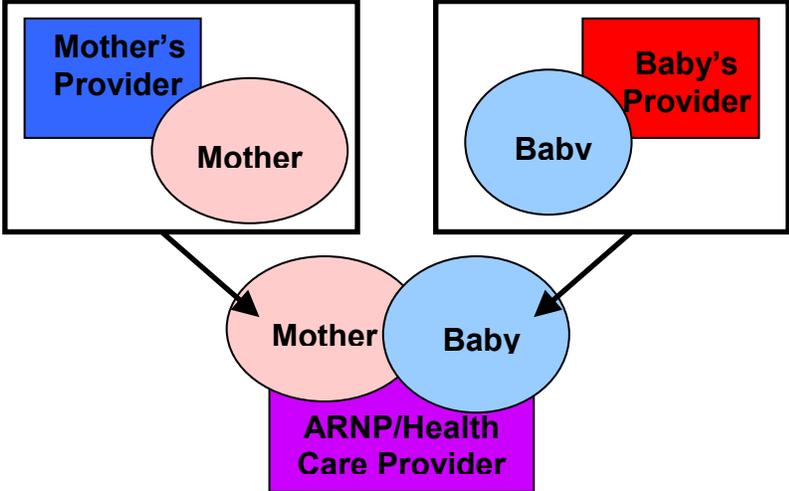
Mercer does not define nursing but does state “nurses are the health professionals having the most sustained and intense interaction with women in the maternity cycle” (Tomey & Alligood, 1998, p. 411). Mercer defined maternal role attainment as the moment:

“...when the mother feels internal harmony with the role and its expectations. Her behavioral responses to the role's expectations are reflexive and are seen in her concern for and competency in caring for her infant, in her love and affection for and pleasure in her infant, and her acceptance of the responsibilities posed by the role” (Meighan, 2006, p. 396).

In 1995 Mercer further explained:

“The personal role identity stage is reached when the mother has integrated the role into her self system with a congruence of self and other roles: she is secure in her identity as mother, is emotionally committed to her infant, and feels a sense of harmony, satisfaction, and competence in the role” (Meighan, 2006, p. 396).

The attainment of the maternal role can be slowed and in some cases obstructed by the prevailing care model where two isolated health care providers focus on the two separate members of the maternal dyad, the mother and newborn. Often, these two care givers have little collaboration and crosstalk, which can lead to impaired communication with the mother. The mother is left feeling vulnerable because she is not fully involved in her own care and that of her infant, leading to decreased satisfaction and in some cases a difficulty fully realizing her new identity (Mercer, 1998). The use of a more holistic treatment method, where an ARNP acts as a partner with and a bridge between the mother and newborn, can more quickly integrate the infant into the mother’s routine while facilitating easy communication and bonding, thus attaining the maternal identity.



*Figure 1.* Schematic model depicting the first encounter for new mothers based on the separate health care provider model and the potential holistic maternal child model of care.

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## Definitions

For the purpose of this investigation, the following definitions will be used:

1. Health care provider: OB/GYN physician, pediatrician, family practice physician or advanced registered nurse practitioner (ARNP).
2. Encounter: the first contact a new mother has with either a physician or ARNP. The encounter can have a positive or negative effect based on the mother's individual journey leading to her recognition of her maternal role.
3. Satisfaction: as defined by the mother as she completes the survey tool. It is conceptualized as the congruence between the patients' expectations of providers and their perceptions of the actual care they received (Marsh, 1999).

## Research Questions

The research questions for this investigation are:

1. Is there a statistically significant difference in new mothers' perception of satisfaction, based on the type of health care provider (ARNP or physician)?
2. Is there a statistically significant difference in new mothers' perception of maternal role attainment based on the type of health care provider (ARNP or physician)?

3. Is there a statistically significant relationship between new mothers' satisfaction and role attainment?
4. Is there a statistically significant difference in new mothers' perception of satisfaction based on the age of the mother?
5. Is there a statistically significant difference in new mothers' perception of satisfaction based on the ethnicity of the mother?

#### Assumptions

The assumptions for this investigation are:

1. Collection of data will demonstrate a true representation of new mothers' perception of their first encounter with a health care provider.
2. Participants will complete the surveys fully and in a truthful manner.

#### Delimitations

The delimitations for the investigation are:

1. Only mothers at their first postnatal encounter with a health care provider will be included in the study.
2. The sample will consist of one community's health care providers' offices and clinics.
3. The geographical area is northeastern Kansas.

#### Limitations

The limitations for the investigation are:

1. The study can not be generalized to other types of care settings.

2. The study is a convenience sample drawn from a Northeastern Kansas community; findings can not be generalized to other demographic regions.

#### Summary

Maternal role attainment is recognized as an interactional and developmental process which occurs over time (Tomey & Alligood, 1998). Mothers' perception of satisfaction with their health care provider is founded on the interaction at that first encounter. Recognizing this in the medical, nursing, and psychological fields has brought about studies in the maternal role.

Investigations such as this must occur to identify what the significance of those relationships is and how the model of care for new mothers and their infants can and should be developed.

## CHAPTER II – REVIEW OF LITERATURE

Chapter II will review the literature available that discusses satisfaction, maternal role attainment, and the health care providers involved. From this investigation, the concepts of satisfaction and the health care provider in the maternal-child environment will be explored. The goal is to better understand how these two concepts can influence the relationship-centered care that is central to a mother's journey towards maternal role attainment

### Literature Review

An extensive literature search utilizing search engines as CINAHL, Proquest, Pubmed, Sage, and Google Scholar databases was performed. The search yielded several articles on patient satisfaction based on physician clinics or hospital based physicians. The search yielded minimal research articles on new mothers' satisfaction with health care providers.

### Health Care Provider

Madlon-Kay and Asche (2006) utilized a convenience sampling (N = 335) of mothers who gave birth at a community hospital in St. Paul, Minnesota from September 2003 to September 2004. They hypothesized that many of the women were not getting the early follow-up visit as recommended by the American Academy of Pediatrics (AAP) or the traditional two week visit. They also hypothesized that this was due to a language barrier. The purpose of the study was to describe the characteristics of mother whose newborns received visits within two weeks of birth. This was done through telephone survey. Consent for the

survey was obtained with a letter that was given to the mother in the hospital after delivery. The letter was available in English, Spanish, and Hmong. The survey questions were based on those used in a series of studies of models reviewing postpartum care at Kaiser Permanente. Validity of this survey was never discussed and the potential for sample bias was evident based on the lack of clear guidelines for enrollment to the study. Recruitment to the study was done by postpartum nurses as their time allowed. The sample size was based on an 80% power to detect a 13% difference between English and non-English speaking mothers. This was done by enrolling only English speaking women until a total of 228 had been enrolled and then enrolling only Spanish and Hmong speaking women for the remainder of the study. The results indicated that 84% of the infants had a home or clinic visit within two weeks of birth.

As determined by bi-variate analyses, the likelihood of having a visit (main variable) within two weeks was significantly lower for mothers having multiple children ( $p = 0.002$ ), lower maternal education level ( $p = 0.002$ ), lower income ( $p = 0.02$ ), a lack of knowledge of the baby's insurance ( $p = 0.02$ ), having no medical insurance ( $p = 0.04$ ), and being of a nonwhite race ( $p = 0.03$ ). The likelihood of a visit was not significantly related to whether English was spoken in the home or marital status. In logistic regression analyses, lower maternal education and more children were significant predictors for the lack of visits.

The study was of interest since this author plans to examine new mothers and their first encounter with a health care provider. Identifying barriers such as language and number of existing children to that encounter and minimizing those obstructive variables will be a facet of this investigation. These variables are outside of the scope of the health care provider and may affect the attainment of the maternal role.

Leahy-Warren (2005) studied the relationship between social support for first-time mothers and their confidence in infant care practices in Ireland using a descriptive, correlational design. A convenience sample of 135 first-time mothers completed a 28-item questionnaire at 6 weeks after birth. The questionnaire was pretested ( $n = 10$ ) and elements were adjusted on the pilot study to improve content validity and reliability. Cronbach's alpha was used to assess internal consistency with a confidence interval of 0.05. Inferential statistics was used to review the data. The chi-square non-parametric test was used to assess the relationship between variables. Demographic data showed 26% of the respondents were within 27-30 years of age while 23% were 18-22 years of age. Over 50% of the respondents were educated to secondary school level and another 43% to post-secondary levels. Eighty-five percent of first-time mothers were planning to return to work once their infant was 3 months of age. The survey revealed that most respondents received social support from their husbands/partners and maternal mothers with 77% receiving informational support from their mothers.

In addition, 77% of the respondents received informational support from public health nurses while 51% also received appraisal support. Compared with public health nurses and midwives, the percentage of respondents indicated that doctors as sources of support were low rated across all types of social support. Using Spearman's rho correlations coefficients, both appraisal and informational support were found to have positive and statistically significant relationships with confidence in infant care practices ( $r = 0.40, p < 0.01$  and  $r = 0.20, p < 0.05$  respectively). Instrumental and emotional support were found not to have a statistically significant relationship with confidence in infant care practices ( $r = 0.09, p < 0.10$  and  $r = 0.14, p < 0.10$  respectively).

A strength of this study is the administration of the survey 6 weeks after birth rather than during the immediate postnatal period within the hospital. The findings suggested that frequent contact with the public health nurse during the first few months of motherhood is critical for informational support and to encourage the confidence of first-time mothers. In addition, the support of a healthcare professional is rated as just as important as the mothers' social structure. However, this study lacks an assessment of whether the support of an ARNP during the first 6 weeks post delivery would have a similar effect, thus indicating the need for this proposed investigation.

An ongoing question is the relationship between the process of care and the outcomes of care based on the type of health care provider. Brown and Grimes

(1995) did a meta-analysis to evaluate patient outcomes of nurse practitioners and nurse midwives compared with those of physicians in primary care. Their premise was that the current research lacked acceptable conceptual definitions, measurements of variables, and the methodological rigor necessary to make valid inferences. The conceptual concerns mentioned in their study included the lack of sensitivity of outcome measures to detect expected changes in the population served by nurse practitioners and midwives, the inappropriate use of the practitioner, rather than a system of primary care practice provided by advanced practice nurses, as an independent variable, and inattention to the relationship between the process of care and the outcomes of care. These researchers were also concerned by methodologies that did not randomize the assignment of patients to providers in order to control for patient morbidity, lacked information to enable assessment of internal and external validity, analyzed inadequate sources of data, used non-explicit standards of care and criteria for comparing patient outcomes, and utilized only superficial cost analyses. The intent of this study was to correct these deficiencies and determine more conclusively the impact that advanced practice nurses in primary care have on both health outcomes and the health care system. The sample included 38 nurse practitioner and 15 nurse midwife studies. Thirty-three outcomes were analyzed, 14 derived from studies comparing nurse practitioners and physicians in primary care, and one derived from studies comparing nurse midwives and physicians in obstetrical care. The search was

done using both published and unpublished works; computer databases such as Medline and Dissertation Abstracts were searched for a 1-year study period. Inclusion criteria included an intervention provided by a nurse practitioner/nurse midwife or nurse practitioner-physician/nurse midwife-physician team, data derived from patient care provided in the United States or Canada, control group patient data derived from physician-managed care, measure of outcome in terms of process of or clinical outcomes, experimental, quasi-experimental or ex post facto research design, and data that permitted calculation of effect sizes and/or determination of direction of effects. The studies were coded for descriptive data, method, research quality, substantive features, and outcome variable on code sheets that were specifically designed for this meta-analysis. Reliability of the code sheet was determined by having each author code ten randomly selected studies (intercoder agreement = 0.89). Results were reported in weighted effect-size estimates, which were defined as the standardized mean difference between the experimental and control groups. The results were discussed based on 95% confidence intervals. It found that nurse practitioners scored higher in patient satisfaction scores, and in resolution of pathological conditions that involved improvement for blood pressure, blood sugars, symptom relief, and resolution of otitis media. The nurse practitioner and physician were equal in the quality of care, prescription of drugs, functional status, number of visits per patient, and use of the emergency room.

With low-risk patients, nurse midwives practice differed from physician practice in that the nurse midwives administered significantly less analgesia, fetal monitoring, and intravenous fluids, and conducted fewer episiotomies, forceps deliveries, and amniotomies. Nurse midwives' patients experienced more spontaneous vaginal deliveries and more perineal lacerations, most often first-degree, than did physician patients. Nurse midwives also achieved neonatal outcomes that were equivalent to the physicians in the obstetrical unit. The strength of this study showed trends in the data that suggested that nurse practitioner and nurse midwife care is equivalent to or at times better than physician care. However, the data from the primary studies does not answer the question of why or under what conditions these outcomes apply.

This study was very interesting due to its larger analysis of the data available that compared the care of the nurse practitioner and the physician. It allowed this researcher to see a body of work in totality for a broader analysis. In addition, it strongly suggests that in terms of basic delivery and postnatal care, ARNPs and nurse midwives are as competent as their physician counterparts. While quality of health care is critical to a new mother, the choice of provider may also influence her satisfaction and concurrently, her maternal role attainment. Currently, no analysis of provider choice and new mother satisfaction exists. However, Munding et al. (2000) compared four outcomes between patients seeing a nurse practitioner and those seeing a physician. These outcomes included

improvement in health, patient satisfaction with the health care experience, and curtailing of expenditures. The settings were four community based primary care clinics (17 physicians) and one primary care clinic (seven nurse practitioners) at an urban academic medical center. Of the sample ( $N = 3397$ ) originally screened, 1316 patients (mean age: 45.9 years; 76.8 female; 90.3% Hispanic) who had no regular health care provider and who kept their initial primary appointment were enrolled.

The participants were randomly assigned to either the nurse practitioner clinic ( $n = 806$ ) or the physician clinic ( $n = 510$ ). During the initial appointment, the participants were given the Medical Outcomes Study 36-Item Short-Form Health Survey (SF-36) which was used as a baseline and follow-up measure for health status. Six months after the initial primary care visit, interviewers contacted the enrolled patients either by telephone or in person to administer a 15-item satisfaction questionnaire used in the Medical Outcomes Study. The instruments used were written in English and then translated into Spanish. The sample size for the two unequal groups was extrapolated from the developers of the instruments. Responses were compared using a two-tailed  $t$ -test with significance set at  $p < 0.05$ . Differences of more than 5 points were considered to be clinically and socially relevant. Validity of the two instruments was briefly described; however, the reliability of the instruments translated from English to Spanish was not. Of the outcomes studied, there was no significant differences between provider type

in patients' health status at six months ( $p = 0.92$ ) or in satisfaction ratings following the initial appointment ( $p = 0.88$ ) for overall satisfaction. Satisfaction ratings at six months differed only for provider attributes, which include technical skill, personal manner, and time spent with the patient, with physicians rated higher (4.2 versus 4.1 on a scale where 5 = excellent;  $p = 0.05$ ). The study came to the conclusion that patients seen by nurse practitioners or physicians, where both providers have the same authority, responsibilities, productivity and administrative requirements, and patient population, had comparable outcomes.

This study's review of outcomes supports the previous finding that basic health care would be comparable based on the type of health care provider. Furthermore, it suggests that provider choice does not greatly impact a woman's satisfaction with her general health care. It does not address whether the unique circumstances of childbirth and postnatal care will also show this trend or if these events should be assessed directly.

Gardner, Chang, and Duffield (2007) reviewed the nurse practitioners' core role, function, and parameters of care thus allowing health service managers to better understand how to use them appropriately. The purpose of the study was to develop the core parameters, draw on this knowledge to develop an operational framework that could identify the nurse practitioner role, and to provide the basis to test this operational framework for further research. The study identified and tested four different models using an interpretive, qualitative approach with the

results that the Strong Model of Advance Practice was the best fit. The study was conducted at three tertiary care hospitals in Queensland, Australia, where a total of 63 nurse practitioners were identified. To ensure representation from the three facilities and to avoid selection bias, a cluster sampling was used to randomly select 8 to 10 representative participants to be invited to participate. Data was collected using in-depth individual interviews with each of the participating nurse practitioners. The questions focused on the specific activities of the role, the patient population served, and the skill and training needed to perform the role. The data were deductively analyzed and tested against published advanced practice nurse models. The results of the data more comprehensively supported the Strong Model of Advanced Practice. The Strong model, which defines five domains of nurse practitioner service (direct comprehensive care, support of system, education, research, and professional leadership), supports the definition of the service parameters as well as the operational framework unique to this study. The findings of this study allowed further validation for implementing a core model of care for the nurse practitioner role.

This study was of interest as a look at the core functions of the nurse practitioner. The study was weak in measurable data, but the authors did state their goal was to build on the core operational framework of the nurse practitioner role rather than to specifically analyze the role.

## Satisfaction

Horowitz et al. (2005) studied commonly used observer-rated measures of the maternal-infant relationship, infant development, and maternal role satisfaction. The instruments examined were the following:

1. The Nursing Child Assessment Satellite Training NCAST Scales (Barnard, Hammond, Booth, Bee, Mitchell, & Spieker, 1989; Sumner & Spietz, 1994), which evaluates parent-child interactions,
2. The Mutual Regulation Scales (Tronick, Als, & Brazelton, 1980; Tronick & Weinberg, 1997), which measures the specific aspect of caregiver-infant interaction and includes such scales as the Maternal Regulatory Scoring System (MRSS), Infant and Caregiver Mutual Regulation System (CCMR) and others,
3. The Ainsworth Strange Situation Procedure (SSP) (Ainsworth, Blehar, Waters, & Wall, 1978), which measures attachment,
4. The Dyadic Mutuality Code (DMC) (Censullo, 1991; Censullo, Bowler, Lester, & Brazelton, 1987), which measures responsiveness in the parent-infant relationship from birth to 6 months,
5. The Interaction Rating Scale (IRS) (Field, 1980; Field et al., 2000), which measures mothers' sensitivity to infant cues,
6. The Parent-Child Early Relationship Assessment (PCERA) (Burns, Chethik, Burns, & Clark, 1991; Clark, 1999; Clark, Musick, Stott, Klehr,

& Cohler, 1984), a videotape based scoring system designed to measure the affective and behavioral characteristics of mother and child interaction, and

7. The Mother-Infant Communication Screening (MICS) (Raack, 1989), which is specifically developed to screen for high risk mother-child interactions.

The validity and reliability of these measures was reviewed. Horowitz et al. found these tools to have several strengths. The tools were based on interrelated, sound theoretical foundations as well as empirical evidence regarding child development. However, they did find the MICS was intrinsically founded on the idea that deviations from optimal communication are the primary sources of interactions that are dysfunctional in nature. It also allowed for research bias which was not found in the other tools. The other noteworthy comment was that the SSP requires a laboratory setting and requires the child to be one year or older. In total, however, the reviewers stated these measurement tools were valuable approaches in the assessment of mother-infant interaction for research and could be adapted for clinical use.

Lieu, et. al. (1998) used a controlled nonrandomized study at a California nonprofit health maintenance organization to evaluate the clinical outcomes, patient perceptions, and cost of a revised model of perinatal care services where all newborns received a routine follow-up visit, educational efforts were shifted

from the postpartum to the prenatal period and breastfeeding support was increased. The study compared the baseline care (pre-intervention) study period ( $N = 344$ ) with those under the revised care (post-intervention) study period ( $N = 456$ ). Data collection was done through telephone interviews with all mothers three weeks after delivery. Data was collected on re-hospitalizations, emergency department (ED) or clinic visits and costs during the first 14 days postpartum, and breastfeeding discontinuation within the first 21 days postpartum. Preliminary bi-variate analyses were conducted and identified group differences in several predictor variables. Approximately 40% of the mothers were having their first baby. The mothers were of diverse race/ethnicity and 40% had a high school education or less. Two variables differed between the study groups: revised care mothers had a higher mean age (28.5 vs 27.7 years;  $p = 0.07$ ) and fewer were first time breastfeeders (47% vs 54%;  $p = 0.06$ ).

The study's primary outcome measure was defined before analysis as a combined clinical "unwanted" outcome that was scored as "present" if any of the above occurred. The analysis determined whether significant differences in outcomes occurred between the baseline care and the revised care groups using logistic regression. Interestingly, 52% in the baseline care and 45% in the revised care group had unwanted outcomes. In the final regression model adjusting for age, race/ethnicity, education, parity, breastfeeding experience, timing of first

prenatal visit and perceived difficulty of labor, the revised care group had lower morbidity compared to the baseline care group (odds ratio (OR) 0.7, 95% CI, 0.5-0.97). Postpartum hospital length of stay was approximately three hours shorter among both the mothers (27.8 vs 30.2,  $p < 0.01$ ) and newborns (27.7 vs 30.3,  $p < 0.01$ ) in the revised group. Newborns in the revised care group were significantly less likely to make urgent clinic visits during the first 14 days of life (OR 0.7, 95% CI, 0.5-0.9). The groups did not differ in initiation or discontinuation of breastfeeding nor in maternal or newborn re-hospitalizations or ED or clinic visits. Of interest to this author, the mothers in the revised care groups were significantly more likely to say that they received enough information about newborn care (OR 2.2, 95 % CI, 1.4-3.3) and enough information about breastfeeding (OR 2.1, 95% CI, 1.4-3.1). They were also more likely to say that they received enough help with breastfeeding while in the hospital (OR 1.5, 95% CI, 1.0-2.2). A higher percentage of mothers in the revised care group reported being very satisfied with their newborn's care after hospital discharge (OR 1.9, 95% CI, 1.3-2.8).

The strength of this study is that it was able to associate improved clinical outcomes and maternal satisfaction to a revised model of perinatal care. The limitation is that the specific population studied did not clearly define the race/ethnicity or provide data for that variable. Nor did they give information as to what tool they used when surveying the mothers. This study interested this

researcher due to the examination of the maternal perception of care received post discharge.

John Britton (2006) evaluated maternal satisfaction with perinatal hospital care during the postpartum period and its relationship to anxiety, depression, and stress. He hypothesized that perinatal satisfaction may be time dependent and associated with contemporaneous medical and psychological changes. A convenience sample ( $N = 300$ ) of new mothers delivering at the University of Utah Medical Center between January 1, 1998 and April 30, 1999 was examined. The mean age of the sample was  $25.39 \pm 0.36$  years. Mothers were asked to complete a questionnaire prior to discharge and then a second tool mailed at one month postpartum. The tools used were the State Scale of the State-Trait Anxiety Inventory (STAI) (Spielberger, 1983) which measured anxiety, the Beck Depression Inventory (BDI) (Beck, Ward, Mendelson et al, 1961) to measure depression, the Peripartum Events Scale (PES) (O'Hara, Varner, Johnson, 1986) to measure stressful perinatal medical events, and a satisfaction tool using a Likert scale. Validity of these scales was discussed as was reliability based on other studies. The researcher used bi-variate analyses, which included Pearson and Spearman correlations for continuous and ordinal variables, chi-square for categorical variables, and  $t$ -tests for continuous variables. Multivariate analyses used logistic regression with covariates forcibly entered. It was noted that satisfaction significantly declined with time, with the mean levels of satisfaction

being  $2.75 \pm 0.03$  on the pre-discharge survey and  $2.48 \pm 0.04$  on the one-month survey, (paired  $t = 6.919$ ,  $p = .000$ ,  $r = .465$ ). Mothers who were very satisfied with their care before discharge had significantly lower PES scores than those who were less satisfied ( $7.16 \pm 0.16$  vs  $7.98 \pm 0.32$ ,  $t = -2.39$ ,  $p = 0.018$ ).

However, at one month there was no difference in PES scores between those women very much satisfied and those less satisfied ( $7.23 \pm 0.18$  vs  $7.43 \pm 0.24$ ,  $t = -0.674$ ,  $p = 0.501$ ). For mothers with moderate to severe anxiety before discharge, the mean satisfaction score was  $2.53 \pm 0.08$ , significantly lower than that of mothers without anxiety, whose mean score was  $2.82 \pm 0.03$  ( $t = -3.33$ ,  $p = 0.001$ ). At the one-month survey, 47.3% were very much satisfied compared with 65.0% of mothers without anxiety. Of the mothers with moderate to severe postpartum depression, the mean satisfaction score was  $2.03 \pm 0.20$ , significantly lower than that of the mothers without depression,  $2.53 \pm 0.04$  ( $t = -2.50$ ,  $p = 0.019$ ). Depressed mothers also were less likely to be very much satisfied with care, but this difference did not achieve significance (42.3% vs 60.9%).

The strength of this study was the validity of the tools used in the research. This study was the first to address global maternal satisfaction and how it may relate with maternal depression, anxiety, and medical events. However, it is possible that the mothers who did respond to the surveys may have been the most satisfied in their care, while the mothers who chose not to respond may have been ill or unable to participate due to some of the events that this study was reviewing.

This author appreciated the study due to the timing of the surveys as well as the aspects that were being addressed.

Jones, Day, Creely, Woodland, and Gerdes (1999) looked at the design, implementation, and evaluation of interdisciplinary clinical pathways for maternal newborn care. Using a perinatal regional referral institution, the authors of this study attempted to improve communication and collaboration among health care providers and to enhance the discharge process for the mother-baby dyad through standardized protocols. The latter goal was based on the need to decrease length of stay and to improve financial outcomes. The authors used three phases in the development of their goal: planning, implementation, and evaluation. In the planning phase several external experts of patient care delivery models were invited for discussions with clinical and administrative leaders to develop support for clinical pathway implementation. The second step was implementation of vaginal delivery and newborn pathways that incorporated patient needs, intermediate patient goals, and desired outcomes for the dyad's anticipated length of stay. The final step was the evaluation of the pathways. However, the investigators were unable to demonstrate collaborative practice or to streamline the discharge process. These failures were due to physician resistance based on their concern that they lacked independence in their practice and that the clinical pathways did not replace any other documentation forms, thus increasing the workload for staff and delaying the discharge time. The authors used this as an

opportunity to review the entire process again. Based on their evaluation, the group made the following changes to the process:

1. Baseline data and every documentation form in use were reviewed for the identity of the user and for any unneeded redundancy.
2. Where possible, all patient information was consolidated onto the pathway.
3. Time frames were developed for the pathway.
4. Approval was obtained from stakeholders (obstetricians, pediatricians, nursing leadership and nursing staff), legal counsel, and the medical records department.
5. All forms were color -coded so they were easily recognizable by the user.
6. All users were educated as to the proper use of the forms.
7. Outcomes had to be quantifiable, specific and selected as a key to the process with an opportunity for improvement. This was done using 42 data points which were closely monitored: most measures showed 100% compliances.

Data was collected for three months and compliance with completing the tool and specific outcomes for each data point were evaluated. The capture rate (variance tools submitted/number of vaginal deliveries or newborns) ranged from 80% to 94% for each of the pathways. Response to individual outcome measures completion ranged from 46% to 96% of the data collection tools submitted.

Objective data points were completed at a higher rate than the more subjective data points. Overall, the study showed that the clinical pathways allowed for a smoother discharge process and increased patient satisfaction but did not decrease length of stay or cost as had originally been the purpose.

A strength of the study is the vision toward a common documentation tool that is based on process rather than tasks. It also recognized the need for an informed patient who actively participated in the process of care. Limitations to this study include its lack of statistical data or analysis or a proven tool for data collection. In addition, there were many uncontrolled variables which required several revisions in the process of the study as well as no written evidence of sample size. The study interested this author based on its initial goal of developing a process that would deliver interdisciplinary care to the maternal-newborn dyad. While the study was based within the inpatient environment, its findings could be easily translated to the perinatal and postnatal environments as well.

Bear, Brunnell, and Covelli (1997) studied a newly initiated nurse-managed senior health clinic that was a collaborative effort between the University of Florida and the Osceola County Council on Aging. The community nursing center focused on those residents who were 55 years of age and older and who did not have a primary health care provider. The clinic was designed using Cox's Interactional Model of Client Health Behavior as a framework which

focuses on the individuality of the patient and the connection of that uniqueness to a patient's health outcomes. The clinic utilized the Client Satisfaction Tool (CST) to measure client satisfaction with the three elements of the client professional interaction: health information, affective support, and professional technical competencies. The nurse practitioners believed that the CST would in time show that satisfaction influenced health outcomes. Bear and Bowers (1998) returned to this clinic and did a more in depth review by using a descriptive, correlational study to investigate the validity and reliability of the Client Satisfaction Tool (CST). Reliability testing using Cronbach's alpha testing found the tool to have a high internal consistency (0.956) and high stability ( $r = 0.974$ ). Construct validity testing with measures of perceived health changed showed that the tool has both convergent ( $r = 0.599, p < 0.01$ ) and divergent ( $r = 0.194, p > 0.10$ ) validity. Of interest to this researcher is the satisfaction findings generated by the CST at the nurse practitioner run clinic. A convenient sample ( $N = 38$ ) of patients from the community nursing center strongly indicated their consistent satisfaction with the care they received based on the same three variables mentioned above. These findings gave credence to the use of the CST in measuring client satisfaction in future research with a nurse practitioner clinic. In addition, this study supports the premise that patients are happy with the nurse practitioner as their sole source of health care and provides a means of correlating that satisfaction with health outcomes.

Bryant and Graham (2002) used a descriptive study to measure the satisfaction of clients receiving care from ARNPs as part of the Wright State University College of Nursing and Health (WSU) Pilot Project which included 36 nurse practitioners practicing in 26 different sites across Ohio. The specialties included family, adult, pediatric, midwifery, and women's health professionals practicing in either a private or group practice. A convenience sample ( $N = 531$ ) of patients was provided with a questionnaire adapted from the Client Satisfaction Tool (CST) which measures client satisfaction with nurse managed clinics. The changes to the tool included removal of items 1 and 2 regarding clinic accessibility and insertion of the words "nurse practitioner" to items 3 through 12 to narrow the focus to the ARNP care. Validity of the original tool was briefly explained but the adaptation of the tool to measure satisfaction of clients with ARNPs was not. The study showed a 68% response rate: of the 531 individuals who participated, 506 provided complete answers which were the only ones used for data analysis. A Cronbach's alpha analysis was used to determine the internal consistency of the adapted CST with a result of 0.935. The study showed a mean satisfaction score that was negatively skewed toward high satisfaction, the intra-quartile range was 45-50, and a 95% confidence interval was calculated.

The strength of this study was the ability to measure satisfaction of care with the ARNPs as a health outcome measure. The limitations would include the ability to generalize the information to a larger population, possible coding or

collecting errors, and the use of a non-random sampling methodology. This study applies to this investigation because it ties together the concepts patient satisfaction and outcomes.

Pinkerton and Bush (2000) studied how patients in a managed care clinic would perceive their health and their satisfaction with care from ARNPs and physicians. Data was collected from a convenience sample ( $N = 160$ ) of individuals 18 and older who stated they were able to read and understand English and were cared for by either an ARNP or a physician. Demographic breakdown is as follows: female  $n = 111$  and male  $n = 49$ , age 18-49  $n = 49$  and those 50 and over  $n = 109$ . The two instruments used were the SF-20 Health Survey (SF-20) and the Nurse Practitioner Satisfaction Instrument (NPSI). Reliability coefficients for the SF-20 ranged from 0.81 to 0.88, similar to those of the original 36-item scale which were 0.76 to 0.88. The item scale correlations for the scales ranged from 0.45 to 0.79, with a median of 0.68, thus concluding that all items in each scale also exceeded the discriminant validity criterion. The investigators reported that all correlations among the health measures were significant at the  $p < 0.001$  level. The NPSI tool was designed to measure patient satisfaction as an outcome of NP care, and to show the specific source of satisfaction or dissatisfaction. The NPSI was found to have an internal consistency coefficient of 0.87. The Cronbach alpha coefficient for the total SF-20 for 146 usable responses was 0.86. The coefficient for 151 usable answers on the total NPSI was 0.91. The SF-20 total

score means for ARNPs and physicians' groups tested with the *t*-test for dependent samples resulted in no significant difference ( $t = 0.95$ ,  $df = 0.148$ ,  $p = 0.34$ ). Applying the alpha correction fact  $(1 - (1 - 0.3413)^2)^{.5661}$  accepted the perceptions of health for both groups were the same. Patient satisfaction using the *t*-test for independent samples indicated no significant difference in the ARNPs and the physician's groups ( $t = -0.92$ ,  $df = 0.149$ ,  $p = 0.60$ ). The study found no difference in the satisfaction with the health care provider (ARNPs and physicians) in a managed care setting. This study recognized that managed care requires all health care providers to evaluate their care processes and how patients perceive satisfaction with the type of health care they are receiving. In addition, this study suggests that a patient's satisfaction may vary with provider in a more specialized care setting, a direction this researcher intends to pursue.

Cole, Mackey, and Lindenberg (1999) used a convenience sample of subjects receiving health care at the University of Texas health services in Houston to research patient satisfaction with the care they received in a nurse practitioner-run clinic and to assess psychometric properties of an instrument to measure client satisfaction with care provided by nurse practitioners. The goal was to develop a tool that would show psychometric evidence of reliability and validity. The data was collected through anonymous questionnaires and only patients who had an appointment with a nurse practitioner were used in the

sample. Respondents ranged in age from 20 to 64 years of age with a mean age of 32.6 years ( $SD = 9.0$  years). The majority of the respondents were female ( $n = 130$ ) and white ( $n = 124$ ). Interestingly, the majority of clients were well-educated with 67% having a baccalaureate degree. The 31-item instrument was constructed through a review of the literature and through examination of extant instruments. The staff at the School of Public Health at the University of Texas developed the items and based some items on their own research in this area. Validity was not explained in this study though an analysis was given. The sample size was sufficient for the analysis and found the tool met reliability and validity based on the consistency of the reliability estimates (0.87 to 0.92).

The scale allowed for a 4-point Likert scale as well as a “not applicable” choice. If the “not applicable” was chosen by greater than 20% of the subjects the item was removed from further analysis. Based on this methodology, 11 items were removed from the instrument leaving 20 items which were subjected to Principal Components Factor Analysis. Using this principle, the researchers removed five more items. The final 15 items were then grouped into three factors: Factor I was labeled inattentiveness, Factor II was labeled comprehensiveness of care, and Factor III indicated caring behaviors. Internal consistency reliability was then assessed for each Factor and ranged from 0.87 to 0.92. The mean score for responses on Factor I was  $M = 7.7$  ( $SD = 2.7$ ), while the mean for Factor II was

$M = 9.0$  ( $SD = 3.0$ ) and Factor III was  $M = 3.9$  ( $SD = 1.3$ ). These scores showed that the satisfaction with ARNPs care was strong in all three factors.

This study was beneficial to this researcher due to the detailed refinement process used to develop a tool that carefully measured satisfaction in a relatively well-educated population. In addition, the mean satisfaction scores suggest that a population able to make an informed choice to see a nurse practitioner will be highly satisfied with the care it receives.

There is a growing national trend to evaluate the cost, efficiency, and effectiveness of health care. The results of client satisfaction surveys can be used as integral parts of the development, implementation, and evaluation of nurse-managed health care delivery models. Katzman, Holman, and Ashley (1993) studied client satisfaction in a clinic that provided 97% of its services through the care of nurse practitioners. 90% of the clinic's clients were non-Hispanic whites and 60% were women. Forty percent of the clients were between the ages of 25 and 59, while 27% were infants and children five years old or younger. The majority of the clients earned incomes between \$10,000 and \$20,000 per year. The goal of the clinic was to become self-supporting; in order to move that direction, the clinic needed to obtain information that could enhance the clinic's financial performance. The clinic staff devised a client satisfaction survey (CSS) that consisted of an 18-item Likert scale questionnaire. The questionnaire would

assess the clients' attitude toward the staff, accessibility of the clinic, and quality of care. The survey also included open-ended questions asking for comments. The sample was random by surveying every third client that attended the clinic over a two month period. Staff informed the respondents that their answers would be anonymous and only reported as group data. One hundred and two questionnaires were collected for analysis, but not all respondents answered all the items. The demographic data showed that the majority of the respondents were female (73%), white (91%), single (43%), and between the ages of 19-25 years of age (27%). While a large number were employed (75%), a smaller number had health insurance (55%). The most common reason given for attending the clinic was convenience and affordability. Other reasons for attending the clinic were illness (48%), wellness (28%), and immunizations (24%). The survey indicated client satisfaction was quite high; 99% stated that "staff respected me as an individual". The validity and reliability of the satisfaction tool was not shared in this study which did affect the value the study has to this researcher. What the study did show was the satisfaction of clients with a nurse practitioner run clinic that had the goal of becoming self sustaining.

Larrabee, Ferri, and Hartig (1997) did a quantitative, descriptive pilot study investigating the differences in patient satisfaction with primary care provided by four nurse practitioners within a large urban hospital's ambulatory care setting. The convenience sample ( $N = 43$ ) included at least 10 patients per

nurse practitioner in each of the four clinics. Participants were included if they were 18 years of age or older, were able to speak and comprehend English, were able to read the questionnaire, and received care from the same nurse practitioner on at least two previous visits. The participants were predominantly male (93%), white (63%), married (56%), and retired (59%). The mean age was 61 years old (range, 26 to 85 years). Income for approximately 70% of the participants was less than \$20,000. The patient satisfaction tool used was a revised version of the Di Tomasso-Willard Patient Satisfaction questionnaire (DWPSQ). The DWPSQ was developed to assess patient satisfaction with care provided by family practice residents. For this study, the word “physician” was replaced with nurse practitioner. The 46-item DWPSQ is written at the 6th grade reading level and uses a 4-point Likert response scale with 4 representing the highest satisfaction. In this study, the internal consistency was 0.96 with Cronbach’s alpha indicating high reliability. The questionnaire was given to all the patients that met the criteria during the same nine day period in all four clinics. Analysis was conducted using a variance ANOVA to determine any differences among DWPSQ items. An alpha level of significance of less than 0.1 was used to minimize the risk of a type II error due to the small sample size. The results found there were no differences among the four groups’ patient satisfaction scores on 74% of the DWPSQ items. The four groups’ patient satisfaction scores did differ

on 12 of the 46 items. In addition, the groups differed on three subscales: NP behavior ( $89.00 \pm 9.54$ ,  $92.82 \pm 8.73$ ,  $82.10 \pm 11.49$ ,  $93.60 \pm 7.24$ ,  $f = 3.19$ ,  $p = 0.03$ ), practice management ( $30.09 \pm 2.98$ ,  $29.90 \pm 3.11$ ,  $27.50 \pm 3.66$ ,  $32.80 \pm 3.08$ ,  $f = 4.55$ ,  $p = 0.01$ ), and availability ( $19.82 \pm 2.86$ ,  $20.18 \pm 2.96$ ,  $17.60 \pm 1.78$ ,  $20.80 \pm 2.90$ ,  $f = 2.72$ ,  $p = 0.06$ ), with patients seen by the nurse practitioner within clinic 3 reporting the lowest mean scores for all three subscales. A possible reason for those lower scores could be the ability of the patient to relate to the practitioner. This indicates that the use of a nurse practitioner clinic with the focus towards holistic and personalized care requires the practitioner to exhibit personality characteristics that support these strengths. Patients who see nurse practitioners who do not have a these personality characteristics will likely be less satisfied with their care. A weakness of the study was the small sample size as well as the fact that the study did not compare the four newly developed ARNP clinics with the larger established physician run clinics. It would be of value to see the satisfaction scores of the neighboring physicians as part of the comparison. This researcher found the study very interesting as it strengthens the role of the advanced practice nurse in an independent primary care clinic.

### Summary of Research

The patient satisfaction viewpoint has dominated the efforts to measure and understand health care quality. These studies provide several patient

satisfaction questionnaires to provide an emphasis on the patient's perspective. Satisfaction can be seen as a confirmation of expectations best conceptualized as an attitude that can be measured. Furthermore, perception of satisfaction can also be related to the relationship the patient has with the health care provider. These studies have shown that patient satisfaction, the health care provider, outcomes, and the ability to internalize the change in one's life are uniquely connected. A new mother's perception of her health care provider and how she perceives satisfaction are foundational to her ability to attain the maternal role identity.

## CHAPTER III – METHODOLOGY

This chapter describes the methodology, design, sample, and procedures that were used in this investigation. The data collection process, instruments used, and the statistical analysis are addressed. The research design for this investigation was a non-experimental Level IV comparative design. This investigation examined new mothers' perception of their new role through their first visit with a health care provider.

### Subjects, Sample Size, and Sample Selection Process

This investigation utilized a convenience sample of mothers delivering in a community health center located in northeast Kansas. Utilizing an 80% power analysis, a small to medium critical effect size of .40, and a significance level of .05, a sample size of 98 was determined to be adequate in decreasing the chance of Type II error.

The age of the sample was restricted to 18 years or older to participate. Inclusion criteria consisted of mothers who were seen by a pediatrician, family practice, or ARNP clinic; mother and baby were discharged at the same time; and the mothers' first encounter with the health care provider occurred within the first week of the newborn's life.

### Protection of Human Rights

There were no identified risks to the participants for this investigation. The mothers' rights to privacy were protected by the omission of any identifying information on either the demographic tool or the survey data collection tool.

There was no monetary gain to the participants. Consent was implied by the completion of the demographic and survey tools and submission through the sealed survey boxes or enclosed self-addressed envelope.

#### Data Collection Procedure

Approval of the investigation was obtained from Fort Hays State University Nursing Research Ethics Committee (NREC) and Institutional Review Board (IRB), the IRB within the health facility where the ARNP clinic resided, and the physician clinics.

The surveys were distributed by the researcher to the ARNP clinic, two pediatricians' clinics, and two family practice clinics that care for newborns. The new mothers completed the survey and either returned it in the provided envelope or placed it in a sealed box at the clinic.

Each survey had a cover letter attached stating the purpose of the investigation. The letter included information to the participant that no patient identifying information would be on the survey and the completion of the survey reflects voluntary consent.

#### Data Collection Instrument

Marsh (1999) adapted a patient satisfaction survey that was built on the works of Ware, Snyder, Wright, and Davis (1983) as well as, Cherkin, Hart and Rosenblatt (1988). The original survey compared care across physician types in outpatient settings. The purpose of Marsh's methodological research was to

modify and test the instrument by measuring patient satisfaction outcomes with primary care providers who represent different disciplines. The format, response options, and item directionality of the Cherkin, Hart, and Rosenblatt's (1988) instrument was retained using the Likert scale: 1 = strongly disagree to 5 = strongly agree. The content of the survey, though based on the medical discipline, did reflect patients' expectations of nursing care as written in nursing literature. The resulting 18-item Patient Satisfaction with Health Care Provider Scale (PSHCPS) was a 5-point summation scale with the higher scores representative of higher satisfaction. The PSHCPS ranked at the 6.4 grade level on the Flesch-Kincaid Readability Test.

Instrument testing was done at a newly operating managed care facility within a large metropolitan university hospital (Marsh, 1999). The hospital had been designated as a provider of tertiary services for the state's medically indigent population. The managed care facility was created to serve the primary care needs of the indigent population. The staff comprised of four nurse practitioners and two family practice physicians. The sample ( $N = 167$ ) consisted of 56 men and 104 women, ranging in age from 17 to 65 years ( $M = 43.5$ ,  $SD = 12.1$  years). Participants were primarily Caucasian ( $n = 127$ ; 76%), with 14 (8.4%) African Americans, 13 (7.8%) Hispanics, 2 (1.2%) Asians, and 3 (1.8%) others. Ninety-two (55.1%) participants had been randomly assigned to nurse practitioners and sixty-six (39.5%) to family practice physicians. Provider assignments were made

by the admissions personnel at the time of the first visit and those patients who were assigned to the nurse practitioners were also seen by physicians if their condition warranted. Data were collected over 18 months. Immediately following their clinic visit the patients were approached by a member of the research team and invited to participate in the study. Those who agreed were given written consent forms and the study was explained and questions answered before the survey was completed. The research team had no communication with the health care providers. The completed surveys were immediately removed to a secure setting. Patient refusal was infrequent and due to fatigue, not feeling well, or time constraints. The possible total scale score ranged from 21 to 105. Actual scores ranged from 53 to 103, with a mean score of 84.7 ( $SD = 11.8$ ). Scores were negatively skewed (-0.567) with an item mean of 4.03, indicating that the patient generally agreed that their care was satisfactory. Interpretation of reliability results was based on the following criteria: Cronbach's alpha  $> 0.70$ ; item-item correlations  $r = 0.30$  to  $0.70$ ; item-total correlations  $> 0.40$ ; subscale-subscale correlations  $> 0.50$ . The standardized Cronbach's alpha for the total scale was 0.92. Subscale alphas ranged from 0.45 to 0.88.

Initial testing of the PSHCPS indicated that it had the potential to evaluate patient satisfaction with different models of care delivery from different disciplines. After speaking with the researcher and developer of this tool, approval to use the tool was obtained (see Appendix A).

### Data Analysis

A *t*-test was used to determine if there was a statistically significant difference in new mothers' perception of satisfaction based on the type of health care provider (ARNP or physician). Thus, the appropriate statistical analysis to answer research questions (RQ) one and two was the independent *t*-test. The Pearson correlation coefficient was calculated for research question (RQ) three which was the relationship between mother's satisfaction and role attainment. The independent *t*-test statistical analysis was performed for the ethnicity and age of the mother.

## CHAPTER IV – FINDINGS

This investigation examined the differences in new mothers' perception of satisfaction based on the type of health care provider (ARNP or physician) seen at their first postnatal appointment. In addition, the role between the mothers' perception of satisfaction and their maternal role attainment were analyzed based on age, ethnicity, education, and if this was their first baby or not.

This chapter presents the findings of the data that were collected and analyzed from pediatric, family practice, and ARNP clinics in a mid-western community. The data were collected from anonymous surveys given to each mother after her first appointment after giving birth. Mothers were given the option of mailing the survey to the investigator or placing the completed survey in the sealed box provided at each clinic. No identifying information was found on any of the surveys and no survey was used if the mother was under the age of 18. Data were entered into the Statistical Package for Social Sciences (SPSS, 2005) program for analysis. The level of significance for this investigation was set at  $p < 0.05$ .

### Demographic Data

This investigation consisted of 101 surveys ( $N = 101$ ) which were the sole source of data used for this investigation.

**Table 1***Demographic Characteristics of Sample (N = 101)*

Variable	Characteristics	<i>f</i>	<i>P</i>
Age	18	2	2.0
	19	2	2.0
	20	5	5.0
	21	2	2.0
	22	4	4.0
	23	7	6.9
	24	8	7.9
	25	9	8.9
	26	10	9.9
	27	7	6.9
	28	5	5.0
	29	9	8.9
	30	7	6.9
	31	5	5.0
	32	4	4.0
	33	4	4.0
	34	3	3.0
	35	1	1.0
	36	3	3.0
	39	1	1.0
41	2	2.0	
46	1	1.0	
	Total	101	100.0

Ethnicity	Hispanic	10	9.9
	Asian	3	3.0
	African American	14	13.9
	Native American	3	3.0
	Caucasian	70	69.3
	Other	1	1.0
	Total	101	100.0
First Baby	Yes	43	42.6
	No	58	57.4
	Total	101	100.0
Education	No Graduation	7	6.9
	High School Grad	45	44.6
	College Grad	36	35.6
	Post-Grad	13	12.9
	Total	101	100.0

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The demographic data analyzed included mothers' age, ethnicity, first baby or not, and level of education. The sample demographics summarized in Table 1 found the majority of participants were 26 years old ( $n = 10$ ,  $M = 27.42$ ,  $SD = 5.20$ ), Caucasian ( $n = 70$ ,  $M = 4.22$ ,  $SD = 1.36$ ), were not having their first baby ( $n = 58$ ,  $M = 1.57$ ,  $SD = 0.50$ ) and were high school graduates ( $n = 45$ ,

$M = 1.54, SD = 0.81$ ). Those mothers having their first baby ( $n = 43$ ) were well represented in the survey.

The social support data for the sample analyzed showed a majority of the mothers had a support base that included significant others, parents, and friends ( $n = 65, M = 4.41, SD = 1.42$ ).

**Table 2**

*Social Support of Sample (N = 101)*

Available support structure	<i>n</i>	Percent
Significant other	12	11.9
Parents	2	2.0
Friends or other relatives	2	2.0
S.O. and parents	11	10.9
S.O., parent and friends	65	64.4
Parents and friends	9	8.9
Total	101	100.0

Survey participants were presented with four questions intended to assess their maternal role attainment by determining their current emotional health. Participants were asked to choose the answer most like their current emotional state. Each question was coded on a Likert scale with 1 signifying the least positive emotional state and 3 being the most positive emotional state towards gaining maternal role attainment. The result of the *t*-test found the majority of mothers noted no significant change in their perception and enjoyment of humor

( $n = 7$ , 76.2%), their level of anxiety ( $n = 56$ , 55.4%), their ability to rest at appropriate times ( $n = 60$ , 59.4%), or their willingness to blame themselves when things were perceived to have gone wrong ( $n = 46$ , 45.5%). In addition, over a third of respondents noted a reduced likelihood to blame themselves ( $n = 39$ , 38.6%) or feel anxiety ( $n = 32$ , 31.7%). There was no significant difference in their response to the four maternal role attainment questions based on the type of provider (Table 3).

Participants were asked to respond to 18 questions intended to gauge their satisfaction with their experience at the appointment that had just completed. There was a significant difference in their responses to two of the eighteen satisfaction questions, “My health care provider respects my feelings” and “My health care provider is very careful to check everything when examining me” based on the type of provider. Homogeneity of variance assumptions is tenable; the equal variance  $t$ -test can be used ( $p > 0.05$ ). Questions three, four, five, and six homogeneity of variance assumptions is untenable and the separate variance  $t$ -test will be used ( $p < 0.05$ ).

**Table 3**  
*Maternal Attainment Questions (N = 101)*

Questions	Provider				<i>t</i>	<i>p</i>
	ARNP		Physician			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
1. "I have been able to laugh and see the funny side of things."	2.73	0.49	2.78	0.42	0.49	0.63
2. "I have blamed myself when things go wrong."	1.73	0.72	1.67	0.75	-0.39	0.70
3. "I have been anxious or worried."	1.65	0.76	1.49	0.65	-1.16	0.25
4. "I have been able to rest when the baby is resting."	2.33	0.51	2.33	0.59	-0.00	1.00

### Findings of Research Questions

Five research questions guided this inquiry. Each question will be discussed separately.

#### *Research Question One*

"Is there a statistically significant difference in new mothers' perception of satisfaction, based on the type of health care provider (ARNP or physician)?"

Participants were asked to rate their experience with their health care provider using the described survey tool (Appendix A). Individual responses were scored according to the code described in Appendix B. Coded responses were averaged and submitted to an independent sample *t*-test [ $t(99) = -1.514, p = .104$ ] comparing the mean score of a mother's perception of her care by either the

ARNP ( $M = 79.15$ ,  $SD = 9.48$ ) or the physician ( $M = 75.96$ ,  $SD = 11.67$ ). No statistical difference was shown in total satisfaction between the two health care provider types. A review of the individual questions within the survey did find two questions that showed a significant difference based on the type of health care provider: “My health care provider respects my feelings” showed a significant difference [ $t(99) = -2.82$ ,  $p = 0.06$ ] comparing the ARNP ( $M = 4.79$ ,  $SD = 0.41$ ) and physicians ( $M = 4.63$ ,  $SD = 0.64$ ). “My health care provider is very careful to check everything when examining me” showed a significant difference [ $t(99) = -2.55$ ,  $p = 0.012$ ] comparing the ARNP ( $M = 4.37$ ,  $SD = 0.63$ ) and physician ( $M = 3.98$ ,  $SD = 0.88$ ).

#### *Research Question Two*

“Is there a statistically significant difference in new mothers’ perception of maternal role attainment based on the type of health care provider (ARNP or physician)?”

Data were analyzed using an independent  $t$ -test [ $t(99) = -.61$ ] comparing the mean score of mothers’ perception of care by either the ARNP ( $M = 8.44$ ,  $SD = 1.42$ ) or the physician ( $M = 8.27$ ,  $SD = 1.51$ ). There was no significant statistical difference between mothers’ perception of role attainment based on the type of health care provider ( $p = 0.634$ ).

The data was then analyzed based on this birth being mothers’ first baby ( $n = 43$ ,  $M = 78.72$ ,  $SD = 10.10$ ) or not ( $n = 58$ ,  $M = 76.78$ ,  $SD = 11.07$ ). An

independent  $t$ -test was run comparing the two groups [ $t(99) = .918, p = .361$ ] which resulted in no significant difference between mothers' perception of role attainment based on the type of health care provider or if this was her first or subsequent baby.

#### *Research Question Three*

“Is there a statistically significant relationship between new mothers' satisfaction and role attainment?”

A Pearson correlation coefficient was calculated to examine the relationship between the average satisfaction and role attainment scores of the two types of providers ( $r = .18, p = .038$ ). There was a significant statistical relationship between mothers' satisfaction and role attainment.

#### *Research Question Four*

“Is there a statistically significant difference in new mothers' perception of satisfaction based on the age of the mother?”

An independent  $t$ -test [ $t(99) = 0.35, p = 0.48$ ] was run on the age of the mothers based on two groupings: group one (18-28 years,  $n = 61$ ) and group two (29-46 years,  $n = 40$ ). Group one ( $M = 4.33, SD = 0.62$ ) and group two ( $M = 4.29, SD = 0.55$ ). There was no significant statistical difference between new mothers' perception of satisfaction based on their age.

*Research Question Five*

“Is there a statistically significant difference in new mothers’ perception of satisfaction based on the ethnicity of the mother?”

An independent *t*-test was run between two groups due to the low sample size of any given ethnicity other than Caucasian. The two groups were Caucasian ( $n = 70$ ,  $M = 76.73$ ,  $SD = 10.87$ ) and other ( $n = 31$ ,  $M = 79.58$ ,  $SD = 10.08$ ). There was no difference in new mothers’ perception of satisfaction based on ethnicity [ $t(99) = -1.28$ ,  $p = 0.21$ ].

Summary

Information in this chapter reviews the five research questions, the data collected and the statistical testing used. Analysis of the findings reported in this chapter is discussed in Chapter V.

## CHAPTER V – SUMMARY AND CONCLUSIONS

This chapter provides a summary of the investigation and analysis of the findings reported in Chapter IV as well as a discussion of the conclusions. Limitations to the investigation as well as recommendations for future research are discussed.

### Summary of the Investigation

This investigation studied new mothers' perception of satisfaction based on role attainment, type of health care provider, mother's age, and mother's ethnicity. New mothers voluntarily completed a satisfaction survey and a short demographic sheet at their first postnatal appointment with either a physician or an ARNP. The satisfaction survey included four questions concerning role attainment based on the works of Ramona Mercer and Reva Rubin (Mercer, 1990; Mercer & Walker, 2006; Rubin, 1975).

### Interpretation of the Findings

#### *Satisfaction Survey Interpretation*

The satisfaction survey included 18 questions with responses based on a 5-point Likert scale. The sample size for all questions was 101 ( $N = 101$ ).

The total satisfaction data did not show a significant difference in mothers' satisfaction after their appointment between the two types of health care provider, meaning the initial supposition for this investigation was incorrect.

There are several possible explanations for this finding. First, it is possible that new mothers in this study population may not be well educated as to what her needs may be to gain independence as a new mother. A new mother may be overwhelmed with her new role due to hormone imbalances, lack of sleep, and a significant lack of background information, thus preventing her from recognizing that her encounter with the health care provider could impact her feelings of competence. The two questions that did show significance difference, “My health care provider respects my feelings” and “My health care provider is very careful to check everything when examining me” did identify two areas where mothers had specific expectations that might not have been met. It is difficult to determine if the other areas were ones that mothers did not have a specific expectations for or if these concerns were truly met.

Secondly, it is possible that mothers were entrenched in the thought process that health care for the mother-baby dyad is fragmented by specialists and were thus unable or unwilling to challenge that model of care. The survey questions’ format supported that fragmented thinking as it did not speak to the care of the dyad but rather to the mother’s perception based on her personal needs. An example of this would be question ten which asked “My health care provider is very careful to check everything when examining me”. A better format might have been “My health care provider is very careful to check everything when examining me and my baby”.

The survey format of this investigation was not optimal for determining if one or both of these explanations underlies the satisfaction finding. Interviewing the mothers might allow for a richer understanding for future investigations.

#### *Maternal Role Attainment Interpretation*

The maternal role attainment questions were developed based on the works of Ramona Mercer and Reva Rubin. Although the data did not show a significant difference based on the type of health care provider, it may be due more to the format of the survey. Further studies using in-depth interviewing would allow the mothers to discuss their experience of childbirth and motherhood from their own perspective. This investigation also focused on the first interaction with a health care provider within the first two weeks of life for the newborn, this may not be enough time for the mother to truly be able to verbalize the impact of her new role. Further studies that investigate the maternal role attainment process might include several specific timeframes for extensive interviewing.

#### *Social Support Interpretation*

The mothers were asked to identify all individuals who were part of their social support network (Figure 4). The majority of participants included their parents as existing sources of support. However, the data do not show a statistically significant relationship between available social support and maternal role attainment.

### *Research Questions Interpretation*

#### *Relation of Patient Satisfaction with Maternal Role Attainment*

Even though there were no significant statistical differences in the research questions one, two, four and five based on the total satisfaction survey or the maternal attainment questions, a breakdown of the individual questions in the satisfaction survey identify areas that need to be addressed by health care professionals. The two questions that did show significant differences related to a mother's perception of how she was made to feel and how detailed the examination was. These findings suggest that differences between health care providers lie not with the information being provided but with the relational aspect of the communication process. In other words, it may be more valuable for a health care provider to make eye contact and regularly ask for feedback that would let them know the mother was getting the information she needed in a manner that she perceived was respectful to her new role.

Even though there were no significant differences in maternal role attainment based on age and ethnicity, this does not allow a supposition that we can treat all new mothers the same. The low number of Hispanic responders may also be due to the language barrier since the survey was only available in English. Another concern would be that some of the women may have been afraid to fill out a survey due to their legal status. In the future, it would be helpful to provide a Spanish survey to the population. New mothers' cultural environment may or may

not impact her journey to maternal role attainment and will require the health care provider to investigate the impact with the mother.

This investigation did find a significant relationship between satisfaction and maternal role attainment; this supports the premise that satisfaction has a relational aspect for new mothers on the journey towards maternal role attainment. A qualitative investigation would allow a deeper analysis into this question.

#### Limitations

This investigation did not allow for the investigator to interview the new mothers to determine their knowledge base before their appointment with the health care provider. Furthermore, while the survey did ask questions that would give information on the mothers' trust of the health care provider, it did not describe how their social support structure impacted their satisfaction with the health care provider. Further studies could provide an insight using open ended questions through an interview process. Did their social support structure have an impact on their satisfaction with the health care provider? Also, the question as to who was in their social support structure did that impact their perception of satisfaction.

#### Future Directions

Findings from this investigation gleaned some information based on the variables and it opened some further areas that need investigation.

### *Nursing Research*

This investigation was not able to address the impact of the type of social support available to a new mother on her perception of her maternal role attainment. The majority of participants identified parents as an integral part of their support structure. Further studies of new mothers' support structure should include number of people in their social support group and which ones had the greatest impact on their ability to move to independence within the maternal role attainment.

In addition, this investigation did not address how the gender of the health care provider (HCP) impacts a mother's satisfaction and maternal role attainment. It would be interesting to characterize differences in how mothers interact with HCPs based on the provider's gender and, conversely, how male versus female HCPs interact with new mothers. Another area of interest is the educational background of the HCP; medical, osteopathic, or advanced nursing. The medical model historically focuses on the curing of disease while the osteopathic and advanced nursing focuses on preventative and holistic care.

### *Nursing Theory*

Reva Rubin's foundational work focused on the point of when the mother is aware of her pregnancy to 1-month postpartum. Ramona Mercer's work is more extensive, as she studied maternal variables including maternal age at first birth, birth experience, and early separation from the infant, social stress, social support,

personality traits, self concept, child rearing attitudes, and maternal health through 12 months post-partum. This investigation focused on the first week of maternal-child interaction, where the foundation of the mother's maternal role process is developed. Further long-term investigation into the impact of role strain, hormonal changes, lack of sleep, breastfeeding concerns, and the mother's perception of her social and health care support would be of great interest within the theoretical framework of maternal role attainment.

#### *Nursing Practice*

This investigation examined the advanced practice nurse's role in maternal role attainment and patient satisfaction. The fact that satisfaction and maternal role attainment did not show a significant difference based on the health care provider should encourage the advanced nurse practitioners to continue to grow their professional role into the post-partum period and to expand their services to mothers and their newborns. The two areas' my health care provider respects my feelings" and "my health care provider is very careful to check everything when examining me", where nurse practitioners had a higher satisfaction score would lead to further investigation. Using a qualitative methodology could glean a better understanding into mothers' perceived satisfaction with the nurse practitioners. More research and theoretical development should focus on the staff nurse on the OB unit. Due to shortened lengths of stay, an RN will often be the sole source of education for baby care, such as diapering, bathing, and feeding. The RN may not

look for effective and positive bonding cues within the maternal-child interaction. This can be even more pronounced with the NICU environment where maternal-child interaction can be limited. Using Ramona Mercer's theoretical framework, the health care team would need to provide scheduled opportunities for bonding through skin to skin contact and praise to the mother as she holds and feeds her newborn. A transitional period between the NICU environment and discharge where the mom has an opportunity to provide full care of her newborn under the supervision of a nurse trained in the Mercer theory would also allow the mother to begin the journey towards maternal role attainment.

#### *Nursing Education*

Orientation and education for nurses new to the OB environment should include an explanation of the theoretical works of Rubin and Mercer as well as an understanding of their role in the maternal role attainment process. Many nursing divisions have adopted nursing theories as the foundation of their practice; OB units should consider the adoption of Rubin and Mercer's theoretical framework to guide their practice.

#### *Summary*

It is clear from the research done by Mercer and Rubin that a woman's transition to motherhood is a period of chaos and re-evaluation of her personhood. This investigation attempted to look at this transition based on mothers' perception of their social support and their interactions with the health care

provider. Though the data did not show a correlation between the type of health care provider and a mother's perception of maternal role attainment, it did beg the question if mothers truly understand the long and difficult transition they have embarked on. Health care providers must take the initiative to better understand the needs of new mothers and firmly imbed in their practice the communication process that will support maternal role attainment. The health care community must also recognize that postpartum care of the mother and baby as a unit would be beneficial both to the physical needs of the mother and baby, but more importantly to the psycho-social aspect of the mother-child relationship that is key to bonding and maternal role attainment. The goal for all health care providers should be to foster the process towards maternal role attainment in all mothers from antepartum to postpartum.

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APPENDIX A:

Patient Satisfaction with Health Care Provider Tool

### Patient Satisfaction with Healthcare Provider

INSTRUCTIONS: Circle the letters to the right of each question that best indicates how you feel about your ability to get the health care you need.

Strongly Agree = SA

Agree = A

Not Sure = NS

Disagree = D

Strongly Disagree = SD

**Instructions:** Following are some statements about your health care. Please read each one carefully, keeping in mind the care you have received from your health care provider, even if you have seen him or her only once. On the line next to each statement, circle the letters for the opinion that is closest to your own view.

Item	Rating					
1. If I have a health care question, I can reach my health care provider for help without any problem.	SA	A	NS	D	SD	
2. My health care provider always does his or her best to keep me from worrying.	SA	A	NS	D	SD	
3. My health care provider always treats me with respect.	SA	A	NS	D	SD	
4. Sometimes my health care provider makes me feel foolish.	SA	A	NS	D	SD	
5. My health care provider causes me to worry a lot because he or she doesn't explain medical problems to me.	SA	A	NS	D	SD	
6. My health care provider respects my feelings.	SA	A	NS	D	SD	
7. My health care provider hardly ever explains my medical problems to me.	SA	A	NS	D	SD	
8. My health care provider is not as thorough as he or she should be.	SA	A	NS	D	SD	
9. My health care provider encourages me to get a yearly exam.	SA	A	NS	D	SD	
10. My health care provider is very careful to check everything when examining me.	SA	A	NS	D	SD	
11. My health care provider asks what foods I eat and explains why certain foods are best.	SA	A	NS	D	SD	

Item		Rating				
12.	My health care provider ignores medical problems I've had in the past when I seek care for new problems.	SA	A	NS	D	SD
13.	My health care provider doesn't explain about ways to avoid illness or injury.	SA	A	NS	D	SD
14.	I'm very satisfied with the care I receive from my health care provider.	SA	A	NS	D	SD
15.	The care I receive from my health care provider is just about perfect.	SA	A	NS	D	SD
16.	My health care provider could give better care.	SA	A	NS	D	SD
17.	There are things about the care I receive from my health care provider which could be better.	SA	A	NS	D	SD
18.	The type of health care I need is available from my health care provider.	SA	A	NS	D	SD

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For permission to use or revise this scale contact:

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Citation:

Marsh, G. W. (1999). Measuring patient satisfaction outcomes across provider disciplines. *Journal of Nursing Management* 7(1), 47 - 62.

APPENDIX B:  
Scoring Key for the  
Patient Satisfaction with Health Care Provider Scale

Scoring Key for the  
Patient Satisfaction with Health Care Provider Scale

Score the following items according to the table below:

Items: 1, 2, 3, 6, 9, 10, 11, 14, 15, 18

<u>Response</u>	<u>Symbol</u>	<u>Score</u>
Strongly Agree	SA	5
Agree	A	4
Not Sure	NS	3
Disagree	D	2
Strongly Disagree	SD	1

Reverse Code the following Items:

Items: 4, 5, 7, 8, 12, 13, 16, 17

<u>Response</u>	<u>Symbol</u>	<u>Score</u>
Strongly Agree	SA	1
Agree	A	2
Not Sure	NS	3
Disagree	D	4
Strongly Disagree	SD	5

Total Score = sum of all item scores

Higher scores indicate higher satisfaction

Possible range 18 - 90

The PSHCPS is adapted from the following:

Ware J E., Snyder M.K., Wright W. R., & Davies A. R. (1983). Defining and measuring patient satisfaction with medical care. *Evaluation and Program Planning* 6, 247-264.

Cherkin, D.C., Hart, L.G., & Rosenblatt, R.A. (1988). Patient satisfaction with family physicians and general internists: Is there a difference? *The Journal of Family Practice* 26, 543-551.

APPENDIX C:  
Demographic Tool

## Demographics

Below are a few questions that will be used only for statistical purposes. Your responses will be confidential. Thank you again for your help in this study.

1. Mother's age at time of birth: \_\_\_\_
2. Is this your first baby? \_\_\_\_yes \_\_\_\_no
3. Who did you see today? \_\_\_\_\_nurse practitioner \_\_\_\_\_doctor
4. Education:
  - a. high school graduate- \_\_\_\_yes \_\_\_\_no
  - b. college graduate- \_\_\_\_\_yes \_\_\_\_\_no
  - c. postgraduate- \_\_\_\_\_yes \_\_\_\_\_no
4. Ethnicity:
  - a. Hispanic- \_\_\_\_\_
  - b. Asian- \_\_\_\_\_
  - c. African America- \_\_\_\_\_
  - d. Native American- \_\_\_\_\_
  - e. Caucasion- \_\_\_\_\_
  - f. Other- \_\_\_\_\_
5. Family Support- Please mark all that apply:
  - a. Significant Other involved- \_\_\_\_\_
  - b. Parents- \_\_\_\_\_
  - c. Friends or other relatives- \_\_\_\_\_
6. Please tell us how you are doing by answering the following question:
  - a. I have been able to laugh and see the funny side of things:
    - As much as I always could
    - Not quite so much now
    - Definitely not so much now
  - b. I have blamed myself when things go wrong:
    - As much as I always could
    - Not quite so much now
    - Definitely not so much now
  - c. I have been anxious or worried.
    - As much as I always could
    - Not quite so much now
    - Definitely not so much now
  - d. I have been able to rest when the baby is resting.
    - Usually
    - At times
    - Not at all

APPENDIX D:

Cover Letter

Dear Mom,

I am conducting a study to better understand the relationship between a health care provider and a new mother as you gain comfort in your new role. The information in this survey will help us better understand how to help support you and encourage you in this process. The survey is very short and all information is confidential. By completing this survey you are hereby providing your consent. As you will see, there are no questions that will identify you or your baby.

Please take a few minutes to complete the survey, place in the attached envelope and then drop in the box provided. Again all information is confidential.

If you have any questions or concerns, you can contact me at 785.231.8735 or my faculty advisor at Fort Hays State University, Dr. Liane Connelly at 785.628.4498.

Thanks for helping us provide the best care for your family.

Respectfully,

Katherine Ure RN

