STUDENT  Sara A. Barry
MENTOR  Dr. Laura Bernaix
PROJECT TITLE  Maternal-Newborn Nurses' Attitudes and Beliefs Toward Adolescent Mothers Who Breastfeed.

ABSTRACT:
Breastfeeding is considered the most complete nutritional source for infants because breast milk contains the essential fats, carbohydrates, proteins, and immunological factors needed for infants to thrive and resist infection in the formative first year of life. These advantages make breastfeeding a good decision for new mothers, especially for new mothers who are also adolescents. The purpose of this study is to evaluate the maternal-newborn nurses' intentions and beliefs about providing support to breastfeeding adolescents. Ajzen and Fishbein's (1980) Theory of Reasoned Action will guide this study. A convenience sample of approximately 20 maternal-newborn nurses will complete a demographic survey as well as a questionnaire measuring their attitudes about adolescent mothers breastfeeding and the level of support they, as nurses, offer to this patient population. Data analysis will include descriptive statistics, psychometric evaluation of instruments, and selected inferential statistics to address the research questions. Results are anticipated to help direct the development of interventions, helping to improve attitudes and supportive behaviors towards adolescent mothers who breastfeed their infants.

Upon submitting this proposal, I verify that this writing is my own and pledge to fulfill all of the expectations of the Undergraduate Research Academy to the best of my abilities. I understand that failure to do so may result in return of fellowship money to the University and forfeiture of academic credit and honors recognition.

Signature of the Student ____________________________________________________________
I am able, willing, and committed to providing the necessary facilities and to take the time to mentor this student during this project. I verify that this student is capable of undertaking this proposed project.

Signature of the Faculty Mentor

This project is within the mission and scope of this department, and the department fully supports the faculty mentor and student during this venture.

Signature of the Department Chairperson

I testify that all necessary research protocols (human, animal, toxic waste) have been fulfilled, and I support this proposed faculty-student scholarly activity as within the mission of the College/School.

Signature of the Dean of the College/School
INTRODUCTION
Breastfeeding is recommended to almost all new mothers because it supplies all of the essential nutrients needed in infancy, and is considered the most complete nutritional source for infants. Breast milk contains the essential fats, carbohydrates, proteins, and immunological factors that help the infant to thrive and resist infection in the formative first year of life (Cadwell, 2002). It is also believed that infants who are breastfed have a decreased occurrence of gastroenteritis, food allergies, and otitis media. These physical benefits are not the only positive aspects to consider in making the decision to breastfeed. The process of breastfeeding encourages the formation of positive bonds and attachments between the mother and child that cannot be simulated in utilizing supplementations such as bottle-feeding (Biancuzzo, 1999). The health benefits of breastfeeding for both mother and child are firmly established, making it a key public health issue globally (Dykes, Moran, Burt, & Edwards, 2003). In recent years there has been a resurgence of breastfeeding in the United States; despite seeing increases in the most vulnerable and less privileged groups (as far as breastfeeding is concerned); these groups are still least likely to breastfeed (Ryan, 1997). To further encourage the rising breastfeeding rate, the United States government has dedicated a portion of their Healthy People 2010 campaign to increasing the proportion of mothers who breastfeed their babies. The current goals include increasing the 1998 early postpartum breastfeeding rate of 64% to 75% in 2010, the 1998 breastfeeding rate at 6 months from 29% to 50% in 2010, and the 1998 breastfeeding rate at 1 year from 16% to 25% in 2010 (Healthy People 2010, 2004).

All of these advantages make breastfeeding a good decision for most new mothers, especially for new mothers who are also adolescents. From conception, newborns of adolescent mothers are at a physical disadvantage due to the mother’s lack of knowledge about infant health, their varied prenatal care access, and the often-precarious circumstances in which adolescent pregnancies take place. Despite the need to increase breastfeeding initiation and duration rates among adolescent mothers, adolescents tend to breastfeed at rates that are about half that of mothers over the age of 25. The breastfeeding initiation rate of US mothers younger than 20 years old was 36% in 1995, as compared with 63% of mothers older than 25. Increasing the breastfeeding initiation rate in adolescents is especially important because infants born to teen mothers tend to be at higher risk for nutritional problems (Park, 2003).

New adolescent mothers, like all other new mothers, expect multi-faceted breastfeeding support during their post-partum hospital stay. Maternal-newborn nurses must provide that support effectively and accept their charge as initiators of the breastfeeding experience by virtue of their employment (Bernaix, 2000). Research has indicated however that many nurses vary in their breastfeeding supportive behaviors and possess inadequate or inaccurate knowledge and beliefs about breastfeeding. However, it remains unclear in the literature whether the varied degree of the nurses’ breastfeeding support given to new mothers extends to the adolescent mother population. Do maternal-newborn nurses believe adolescent mothers should breastfeed their newborns, and are maternal newborn nurses helpful and supportive to this aim?

The purpose of this study is to evaluate the maternal-newborn nurses’ intentions and personal beliefs about providing support to breastfeeding adolescents. This study will be conducted utilizing two surveys from Bernaix’s study (2000), and will evaluate demographics as well as the level of nursing support offered to breastfeeding adolescent mothers. The research question upon which this study is based asks: Is there a relationship between the nurses’ demographics, attitudes, and subjective norms about breastfeeding and their intentions to provide breastfeeding support to adolescent mothers who choose to breastfeed?

LITERATURE REVIEW
In reviewing literature on adolescent pregnancy and breastfeeding, many topics focused primarily upon the influences on adolescent feeding decisions or on adolescent breastfeeding experiences. In a study conducted by Wambach and Cole (2000), articles published between the years 1980 and 1999 on breastfeeding, infant feeding, and adolescents were critically reviewed and analyzed. This review proved to be the most beneficial as it reviewed 38 articles and then evaluated areas where excessive numbers of studies had been conducted, as well as areas that were severely lacking in research. According to Wambach and Cole, two main issues bolster the
importance of gaining insight into the adolescent breastfeeding phenomenon. First, adolescent pregnancy rates in the United States, although declining, remain higher than those of many other industrialized countries. In fact, 13% of all live births in the United States are to women younger than 20 years. Second, the social and economic disadvantages affecting many adolescent mothers can be offset by the positive contribution that breastfeeding and human milk can provide for mother and infant (Wambach & Cole, 2000). After reviewing the literature fitting the criteria for their study, Wambach and Cole identified that no studies in the literature looked at the attitudes of health care professionals related to breastfeeding choice and support among adolescents (2000).

As no studies of this nature have yet been published, Bernaix’s (2000) study served as a good source of reference on how to proceed with my research. Through the evaluation of a sample of 50 maternal-newborn nurses and 136 breastfeeding mothers, Bernaix’s study identified characteristics of nurses and external factors that influenced the nurses’ ability to provide effective breastfeeding support to mothers and their infants. Registered nurses who had been employed for at least six months in postpartum and nursery settings were evaluated, and data were collected through questionnaires. The mothers were also evaluated and were selected if they were post-partum in the maternity-newborn unit, breastfeeding, and had been under the care of one of the evaluated nurses for at least eight hours. Through multi-regression analyses, data suggested that nurses’ intentions to provide support to breastfeeding mothers during the immediate in-hospital postpartum stay are best predicted by nurses’ attitudes and social pressures. Furthermore, although the actual supportive behavior toward breastfeeding mothers was influenced by these same attitudes, the best predictor of supportive behavior was nurses’ knowledge of breastfeeding (Bernaix, 2000).

The design of Bernaix’s study, although not specifically evaluating the nursing support offered to adolescents, offers the best framework upon which to build future research regarding the nursing support offered to breastfeeding adolescent mothers. Bernaix’s study used the theoretical framework developed by Ajzen and Fishbein; the Theory of Reasoned Action. This theory is based on two assumptions: (1) people consider the implications of their actions before they decide to engage or not engage in a certain behavior, and (2) a person’s intention to perform (or not perform) a certain behavior is the immediate determinant of the action. According to the Theory of Reasoned Action, a person’s intention is based on two basic factors: a personal factor and a social factor. The personal factor, referred to as attitudes toward the behavior, represents the individual’s negative or positive evaluation of performing the behavior. The social factor, referred to as the subjective norm, is the person’s perception of the social pressures placed on him or her to perform or not to perform the behavior. Applied to this theory, the personal and social factors involved in breastfeeding support can help predict if the support is offered, and why. So in addition to Bernaix’s study, this theory can also be effectively applied to the evaluation of nurses’ breastfeeding support offered to new adolescent mothers.

A 2003 study conducted by Dykes, Moran, Burt, and Edwards in the North West of England, UK evaluated the experiences and support needs of adolescent mothers who had commenced breastfeeding. This study conducted in-depth focus groups as well as interviews to elicit the support needs identified by the adolescents with regard to breastfeeding. The data transcribed from the focus groups and interviews were thematically analyzed. Five themes of experience and five themes of support needs were found. The five themes of adolescent breastfeeding experience included feeling watched and judged, lacking confidence, tiredness, discomfort, and sharing accountability. Support needs were also addressed with five generally expressed themes. These themes included emotional support, esteem support, instrumental support, informational support, and network support.

Of these, esteem support was crucial to the adolescents in enhancing their feeling of self-worth, ability, and being valued as both a mother and in relation to breastfeeding. The adolescents also valued instrumental support and the nurses providing practical support with breastfeeding, particularly with attaching their baby effectively to their breast, but they wanted to be shown how to do it. The desire for praise and encouragement from significant others and health professionals was particularly strong in this study and was a key element in self-efficacy building. Dykes, Moran, Burt, and Edwards concluded that when encouragement was combined with provision of realistic, useful, and accurate information, the adolescent perceived that encounters were supportive of breastfeeding (2003).
A 1997 study conducted by Ineichen, Pierce, & Lawrenson evaluated the attitudes and behaviors of 55 teenage mothers in relation to older mothers. The study found that midwives and other professionals were almost without exception reported as being in favor of breastfeeding, but ten mothers (four breastfeeders and six non-breastfeeders) said the professional had given them advice on the lines of “Try whatever you are comfortable with” (1997). It is possible that such a vague comment from a practitioner further discouraged the six adolescent mothers who inevitably chose not to breastfeed. Also, in addition to a meta-analysis of studies of maternity-ward practices (Perez-Escamilla et al., 1994) that concluded that they could make a positive contribution to increasing breastfeeding rates, attention needs to be paid to those who give up breastfeeding soon after the birth. In the Ineichen, Pierce, & Lawrenson study several mothers in the sample had given up before day three after birth, before the flow of milk had been established (1997). This is especially problematic when considering the short post-partum hospital stay that most new mothers experience. Vulnerable, inexperienced young mothers are in special need of advice and reassurance. Finally, this study concluded that care staff could boost breastfeeding rates among adolescent mothers by explaining the advantages of breastfeeding early in pregnancy (1997).

In the conclusion of their study, Wambach and Cole state that, “A descriptive study should be conducted measuring the attitudes of health care professionals towards adolescent infant feeding choices and practices. Such information could be used to design methods to positively influence health care professionals’ attitudes and practices with teens in this area. As health care professionals are concerned with health promotion for all childbearing women and their children, nurses must take steps to design and conduct research to advance breastfeeding promotion and support efforts with this special population” (2000).

Using the Nursing Support for Breastfeeding Questionnaire from Bernaix’s study, as well as her personal demographic questionnaire, the principal investigator will evaluate the maternal-newborn nurses’ intentions and personal beliefs about providing support to breastfeeding adolescents. Bernaix developed the Nursing Support for Breastfeeding Questionnaire based on the Theory of Reasoned Action. This questionnaire was developed to specifically measure the nurses’ attitudes, subjective norms (social pressures), and behavior intentions towards providing support to breastfeeding mothers. This questionnaire has been modified to fit the aims of this research plan through the alteration of its content to relate to adolescent mothers who choose to breastfeed. The 64 item questionnaire is based on a 7-point Likert-type scale format. It separately evaluates the nurses’ intentions to provide breastfeeding support to adolescents, the nurses’ feelings and personal beliefs towards providing breastfeeding support to adolescents, and the subjective norms that can affect the nurses’ attitudes and intentions in providing breastfeeding support to adolescent mothers. The personal demographic questionnaire contains 13 items that measures selected demographic data about the nurses. This data includes the nurses’ basic nursing education preparation, the number of continuing education courses they have attended over the last two years, and the nurses’ personal breastfeeding histories. It is expected that the results of this study will provide insight into the nurses’ demographics, attitudes, and subjective norms about breastfeeding and their intentions to provide breastfeeding support to adolescent mothers who choose to breastfeed. It is also expected that some of the nurses who complete the questionnaires may hold negative attitudes and beliefs that could decrease their intentions to provide breastfeeding support to adolescent mothers. Results of this study are anticipated to help direct the development of interventions that will help improve nurses’ attitudes, perceptions, and supportive behaviors towards adolescent mothers who breastfeed their infants.

**PROCEDURE**

This descriptive, correlational study will use a survey technique for data collection. Following IRB approval from SIUE and the two data collection sites, a packet containing a cover letter and the study questionnaires will be explained and distributed to labor, delivery, and postpartum nurses at two Midwestern metropolitan hospitals during a regularly scheduled staff meeting. Nurses not attending the meeting will have a packet placed in their individual staff mailboxes. Permission to present the study and distribute the packets will be obtained from the nurse manager of each hospital’s obstetrics unit. Potential participants will be instructed that if they agree to participate, they should complete the questionnaires, seal them in the provided envelope, and place them in the
locked box that will be provided at the nurse’s station. A one-week deadline will be requested. At the end of the one-week the Principal Investigator will collect all completed questionnaires. Return of a completed questionnaire will imply informed consent. If less than 50% of the total nursing staff for either hospital unit does not respond in the given time frame, a reminder note card and another packet will be placed in all of the nurse’s individual staff mailbox located on the hospital unit. Another one-week deadline will be imposed.

No names will be used at any time during this study. An identification number will be assigned only for computer data entry. The participants will be informed that their study participation is voluntary and not associated with their employment. All results will be reported in the aggregate. Data analysis will include descriptive statistics, psychometric evaluation of instruments, and selected inferential statistics to address the research questions. Results will be disseminated at the annual URA Research Banquet and at the Senior Assignment Poster Presentation Day sponsored by the School of Nursing and the NURS487: Senior Synthesis Course Faculty. Publication of the study is also anticipated.

**TIME LINE**

April – July, 2004: Completing IRB process at SIUE and both of the data collection sites.

July 12, 2004: Distribute questionnaire at Barnes Jewish Hospital and place boxes at nurse’s station.

July 14, 2004: Distribute questionnaire at Anderson Hospital and place boxes at nurse’s station.

July 19, 2004: Pick up completed questionnaires from Barnes Jewish Hospital and leave reminder cards and new packets in mailboxes.

July 21, 2004: Pick up completed questionnaires from Anderson Hospital and leave reminder cards and new packets in mailboxes.

July 26, 2004: Pick up completed questionnaires from Barnes Jewish Hospital.

July 28, 2004: Pick up completed questionnaires from Anderson Hospital.

August 2, 2004: Pick up any remaining questionnaires and lock box from Barnes Jewish Hospital, and post a thank you flyer at nurse’s station.

August 4, 2004: Pick up any remaining questionnaires and lock box from Anderson Hospital, and post a thank you flyer at nurse’s station.

August 9, 2004-October 4, 2004: Data organization and analysis.

October 4, 2004-January 3, 2005: Write final research report and provide progress report to URA.

February 2005-March 2005: Poster construction through Brady Drake

April 2005: Finalization of project and presentation to URA at Student Symposium.

December 2005: Presentation of project at the Senior Assignment Poster Presentation Day sponsored by the School of Nursing and the NURS487: Senior Synthesis Course Faculty.
References


Budget Justification

The following is an estimate of the expenses that will be incurred in conducting the proposed research:

1) **Commodities**  
   Locking suggestion boxes (Office Depot: $50.86 each x 3): $152.58  
   Envelopes (Office Max Box of 50: $2.45 each x 2): $4.90  
   Paper (Office Max 1 ream of 500 sheets: $4.53 each x 2): $9.06  
   Reminder cards (Office Max Box of 150 3x5 printable index cards: $23.49 x 1): $23.49  
   Portable expanding file (Office Max: $10.00 each x 1): $10.00  
   Pencils (Office Max Box of 72: $3.99 x 1): $3.99  
   Staples (Office Max Box of 5000: $2.69 x 1): $2.69  
   Portfolio presentation binder (Staples: $6.62 x 1): $6.62  
   Portfolio presentation pages (Staples 10pk: $2.97 x 2): $5.94

2) **Contractual Services**  
   Poster (Printing on color printer, mounting of presentation by Brady Drake, St. Louis): $300

3) **Travel**  
   Barnes Jewish Hospital - St. Louis (54 miles round-trip, 6 times @ $0.36 per mile): $116.64  
   Parking at Barnes Jewish Christian Hospital ($5 to park x 6 trips): $30  
   Anderson Hospital (12 miles round-trip at $0.36 per mile): $25.92

4) **Other**  
   Copying: (15 pgs. X 70 copies @ $0.10): $105.00

**Total Expenses:**  $796.83

*Note: Depending on how commodities are purchased, there may be shipping & handling charges.*