AN ADOLESCENT PRENATAL EDUCATION CURRICULUM

Scholarly project for the Degree of M. S. N.

MICHIGAN STATE UNIVERSITY

LINDA A. DALMAN

1998

AN ADOLESCENT PRENATAL EDUCATION CURRICULUM

By

Linda A. Dalman

A SCHOLARLY PROJECT

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE IN NURSING

College of Nursing

1998

ABSTRACT

AN ADOLESCENT PRENATAL EDUCATION CURRICULUM

By

Linda A Dalman

Adolescent pregnancy is at a very high rate in the United States, contributing to the high incidence of low birth weight babies and premature births. Literature reveals effective prenatal education to pregnant adolescents can have an impact on lowering the number of premature births and low birth weight babies . For this project a prenatal education curriculum from the Oakland County Health Department was adapted to the adolescent population, using Leininger's Cultural Care Diversity and Universality Theory and Kolb's Learning Theory. The adolescent is seen as part of a specific culture who has various learning styles. This study addresses the unique adolescent culture and learning styles, to create an effective adolescent prenatal education curriculum. Implications for the APN are presented, focusing on education, research, advanced practice, and product development.

ACKNOWLEDGMENTS

I am grateful for the wonderful support of my chairperson, Dr. MaryJo Arndt. Her unceasing advice, support, and encouragement were instrumental in the successful completion of my project. With her gift of organization, expertise, and ability to keep me on a focused schedule, I was able to complete my project within the desired time frame. Thanks also to Kathie Dontje and Jackie Wright for their willingness to offer their expertise and assistance.

I also thank the Ottawa County Health Department and the Prenatal Education Committee for their input in this curriculum. I especially thank Connie Kross and Lisa Stefanovky who helped write and rewrite the curriculum. I especially thank Shirley Rogers for retyping the curriculum so many times. Much thanks to Linda Bender and Oakland County Health Department for sharing their curriculum for our revision.

I would also like to express my gratitude to my husband George, and children, Ryan, Ben, Kurt, and Anne for their patience and support during these months in which this project over shadowed our family time. I could not have done this project without your encouragement.

TABLE OF CONTENTS

LIST OF FIGURES

Introduction

More than 1 million teen age girls in the United States become pregnant each year (Bachman, 1993). The high rate of adolescent pregnancies is of serious concern to many citizens but especially perinatal health professionals because of the increased risks to both mother and baby (Slager-Earnest, Hoffman, & Beckmann, 1987). Approximately 6% of all infants born in the United States in 1980 were born to girls who were less than 18 years old. Studies from the 1960s, 1970s, and 1980s have shown that births to such young mothers are associated with high rates of infant mortality, morbidity, and subsequent psychosocial and developmental problems among surviving offspring (Piechnik & Corbett, 1985). The United States ranks 19th among 25 industrialized countries in the rate of infant mortality; many wonder how this can be. One major subgroup which contributes to these numbers is the adolescent population who deliver 13% of the low birth weight infants. Low birth weight infants make up 0.3% of all births in the United States and account for 25% of infant deaths the first year of life (Opuni, Smith, Arvey, & Solomon, 1994). These statistics have prompted health professionals to try to reduce these numbers, looking for innovative ways to improve perinatal outcomes.

Background and Significance

Adolescent pregnancy is a major health problem in the United States. Ottawa County of Michigan had 272 live births to teens between 15 and 19 years of age, representing 8.4% of the live births in the county, according to 1995 Ottawa County statistics. There were 4 births to mothers below age 15, the largest portion coming from Holland Township and Holland City. A survey conducted by the Ottawa County Health Department in 1996, identified that the adolescent population was either not attending a prenatal class or that the education was not meeting their needs because of class structure and/or the information format was not sensitive to the adolescent population. The existing prenatal education class curriculums that are currently provided in the county are not specifically targeted for the adolescent population. In order to provide effective prenatal care to this population, class curriculums must be designed to address the specific needs and learning characteristics of the adolescent population.

In order to address the lack of prenatal education targeted for teens, a group of 3 RNs and 3 health educators representing Ottawa County, Holland Hospital , Zeeland Hospital, and one of the local physicians offices formed a committee to begin an adolescent prenatal education class in Ottawa County of Michigan. A pilot program was created and information from a focus group of adolescent parents was assimilated to help design a program to fit the adolescent's needs. A pilot class of 13 adolescents was conducted in January of 1998. Another adolescent prenatal class was held in April and again in June of 1998. Presently a prenatal class, consisting of 9 pregnant adolescents and their coaches, is being conducted at the Ottawa County Health Department.

Nurses have a responsibility to provide appropriate prenatal education to pregnant adolescent girls. The education needs to be inviting and include specific content which fulfills adolescent's desires and needs for parenting skills as well as the labor and delivery process. Since research has shown the positive effects of early prenatal education and the reduced risk of poor pregnancy outcomes, it should be an essential part of pregnant

adolescent prenatal care (Dieterich, 1997). Fewer preterm deliveries and higher birth weight infants were the result of the Northeast Adolescent Project done in 1990. This project involved a collaborative effort of community services including nurse educators, clinic services, public school staff, case managers, counselors and public transportation personnel (Opuni et al, 1994). The relationship between a lack of prenatal education and the number of preterm deliveries was also studied, and a positive correlation was observed (Libbus & Sable, 1991). In order to significantly improve the outcomes of adolescent pregnancies, it is necessary to reduce the incidence of low birth weight by addressing the social, psychological, and nutritional needs as well as specific health problems of young pregnant girls (Piechnik, 1985). Prenatal education can help address pregnant adolescent health issues. The APN can use the adolescent prenatal education class as an opportunity to encourage improvement in women and children's health by addressing pregnant adolescents high risk needs. The education can help cut the cost of primary care by reducing the number of low birth weight babies and premature deliveries. The APN role as assessor, health educator, and advocate can be utilized in the pregnant adolescent health concern. The APN involved in primary care can help organize these classes and teach the pregnant adolescent population.

Purpose

The purpose of this scholarly project is to create a theoretically based prenatal education curriculum for adolescents and their support person. This prenatal education curriculum incorporates the Kolb's Learning Style Theory as well as Leininger's Culture Care Diversity and Universality Theory. The goal of the adolescent prenatal education course is to help adolescents deal more effectively with the labor and delivery process and also develop needed parenting skills. The project is a theory based curriculum which could be used by health care professionals in most any setting to teach pregnant adolescents.

Definition of Terms

Prenatal education is defined here as the provision of information about pregnancy, labor and delivery, and parenting skills, taught in a small group session, applying various learning style techniques (Lindell, 1988). This free prenatal education class will last six weeks followed by a series of parenting support sessions.

Female Adolescent is defined as a woman between 13-19 years of age.

Learning Style refers to the way individuals generate the concepts, rules, and principles that guide their behavior in new situations they encounter (Kolb, 1984).

Support Person refers to anyone the pregnant adolescent chooses to help her through the labor and delivery process; this may be father of the baby, her mother, sister, or friend.

Project Design

A specific adolescent prenatal education curriculum was designed incorporating a variety of teaching methods. Kolb's Learning Theory was used to create a curriculum which meets the adolescent's various learning styles. Leininger's Cultural Care Diversity and Universality Theory was applied to this study as a framework to assess the adolescent culture. Adolescents were asked to suggest ways to improve the class through an evaluation process. The end product is a packet which includes a short explanation of the theories used and a condensed review of the adolescent culture, helping educators sensitively apply the curriculum of 6 lesson plans.

Theories and Framework

The framework for this project is Leininger's Cultural Care Diversity and Universality Theory as well as Kolb's Learning Style Theory. Leininger's Theory is used in this project to visualize the adolescent as a culture. Concrete ways to assess and understand the adolescent culture are described using Leininger's Theory. The Kolb's Learning Style

Theory is used to help design a prenatal curriculum which can be understood by a variety of learners, no matter what their learning style.

Leininger's Theory

Leininger stresses careful assessment of the client before quality care can be given. Technological factors, religious and philosophical factors, kinship and social factors, cultural values and lifeways, political and legal factors, economic factors, and educational factors all need to be determined (Leininger, 1979).This theory focuses on the health system that encompasses the values, norms and structural features of a specific family or community (see Figure 1).

Madeleine Leininger experienced a culture shock during the mid 1950s while she worked with children in a child guidance home in midwestern United States. Specifically she functioned as a clinical nurse specialist working with disturbed children and their parents. She observed in these children concurrent behavior differences and concluded these were culturally based. She decided that a lack of knowledge in different cultural bases was a missing link in nursing care. Leininger built her theory on the premise that the peoples of each culture not only can know and define the ways in which they experience and perceive their nursing care world but also can relate these experiences and perceptions to their general health beliefs and practices (George, 1990).

Leininger's definition of transcultural nursing is: "a learned subfield or branch of nursing which focuses upon the comparative study and analysis of cultures with respect to nursing and health illness caring practices, beliefs, and values with the goal to provide meaningful and efficacious nursing care to people according to their cultural values and health-illness context" (Leininger, 1979, p.15).

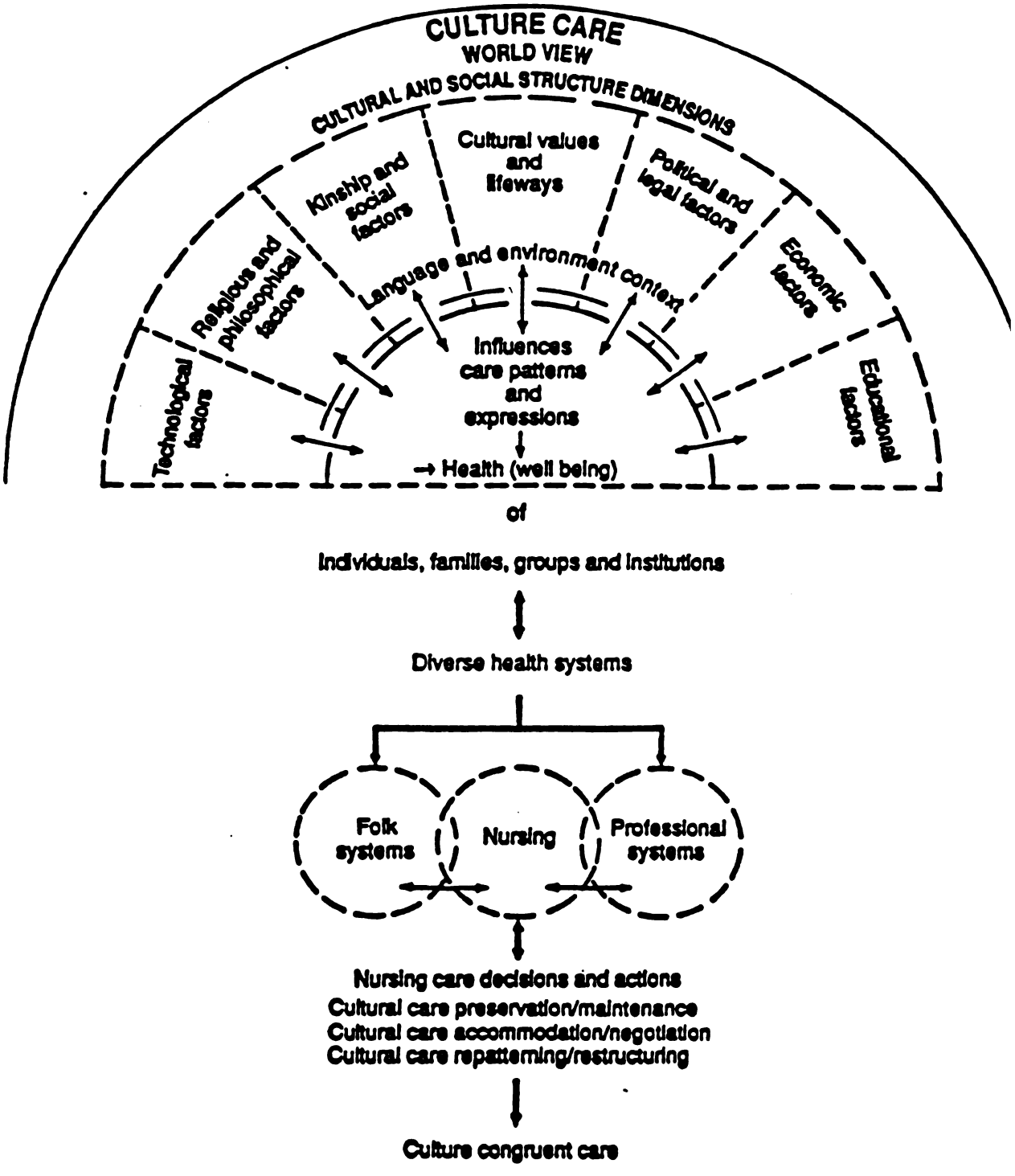

Figure 1. Leiniger's Sunrise Model depicts dimensions of Cultural Care Diversity and Universality. Note. From Culture Care Diversity and Universality: a theory of nursing (p. 43) by M.L. Leininger, 1991, New York: National League for Nursing.

Leininger looks at both the cultural differences and commonalities. She refers to commonalities as universality and differences as diversity. *Culture* is defined as the learned, shared and transmitted values, beliefs, norms, and life practices of a particular group that guides thinking, decisions, and actions in patterned ways. *Cultural values* are derived from the culture and identify desirable ways of acting or knowing. These values guide decision making for members of the culture. *Culture care* is defined as the cognitively known values, beliefs, and patterned expressions that assist, support, or enable another individual or group to maintain well-being, improve a human condition or lifeways or face death and disabilities. (George, 1990)

Leininger most often refers to ethnic cultures in her theory but age groups also present specific learned values, beliefs and patterned expressions. Adolescents present with a specific set of norms which they and their peers have developed over the years. This very specific culture has been present as long as there have been adolescents. The adolescent culture is part of the developmental process, a part of becoming a man or a woman. The changes which occur may cause the adolescent to experiment and be different from children or adults. The need to be different is an effort to be unlike the children adolescents once were and different from the adult world adolescents are to become. In order to find out what you can do and who you are, you have to find out what you can do on your own (Hamachek, 1990). In adolescence, a metamorphosis occurs and with this change, a set of values, dress, language, music and outlooks are produced. Understanding an adolescent's definition of health is important to developing a plan of care or educational curriculum. Awareness of an adolescent's feeling of invulnerability and in some cases awareness of the adolescent's naivete is imperative.

Culturally congruent care will help the client learn how to improve or maintain their health, be satisfied with their care, and follow through with care plans. *Nursing* to Leininger involves providing human care to people in a way that is meaningful, congruent, and respectful of cultural values and life styles. A model depicting the

adolescent culture and prenatal care was developed by Dalman (See Figure 2). Adolescents are a culture of their own and assessing their cultural and social structure dimensions; their needs, values, education level, economic status, and social support systems is important when providing prenatal care to adolescents. Prenatal health of adolescents as seen in the Dalman model involves many influences and care patterns. There are diverse health systems which also play a large role in adolescent prenatal health. *Community prenatal education* is only one part of the diverse health systems which interact with the pregnant adolescent. *School and social services* are interacting also and serve a very significant part of adolescent development and health care. *Prenatal clinic care* also is very important and articulates with the community prenatal education programs. Prenatal education, school and social services, and prenatal clinic care need to interact with each other and the adolescent to produce the finest outcomes, that of a healthy mom and baby as well as effective parenting skills. (George, 1990)

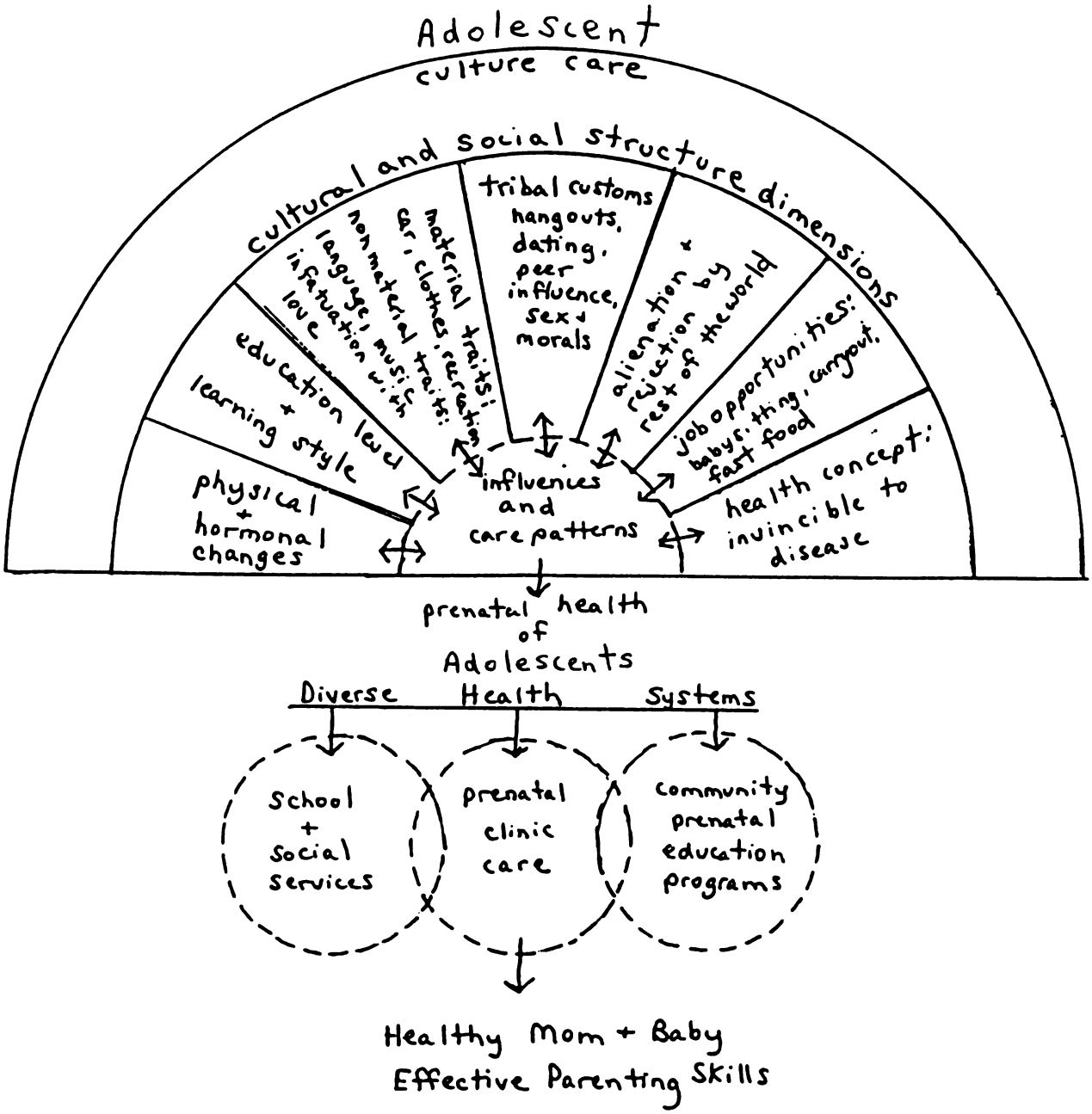

Figure 2. Dalman's Adapted Sunrise Model depicts dimensions of Cultural Care Diversity and Universality, adolescent culture, and the concept of adolescent prenatal education. Note. From Culture Care Diversity and Universality. A theory of nursing (p.43) by M.L. Leininger, 1991, New York: National League for Nursing.

Kolb's Theory

Kolb's Learning Style Theory is used as a framework in this project to underpin specific learning styles adolescents may have. Kolb identified four learning styles; Converger, Diverger, Accommodator, and Assimilator (Reed, Ayersman, & Kraus, 1997). Awareness of these different learning styles and using curriculum which relates to a variety of learning styles can help a greater number of students learn more effectively. Individuals will gravitate to a particular style of learning based on past experiences, heredity, and environmental demands. There is no best learning style, all are of equal value and merely represent different ways of gaining knowledge (Arndt, 1994). The project does not assess each adolescent's learning style individually but incorporates a variety of teaching methods to reach a variety of different learning styles, consistent with the application of Kolb's learning theory.

Kolb (1984) developed a learning cycle which starts with *concrete experiences*, followed by *observation and reflection*, leading to *formation of abstract concepts and generalization*, evolving to *testing implications of concepts in new situations*, and again back to *concrete experiences* (See Figure 3). Concrete experience learning involves leadership, relationship, and help skills. Reflective observation learning includes sense making, information gathering, and information analysis. Abstract conceptualization learning includes theory, quantitative, and technological skills. Active experimentation learning involves goal setting, action, and initiation skills.

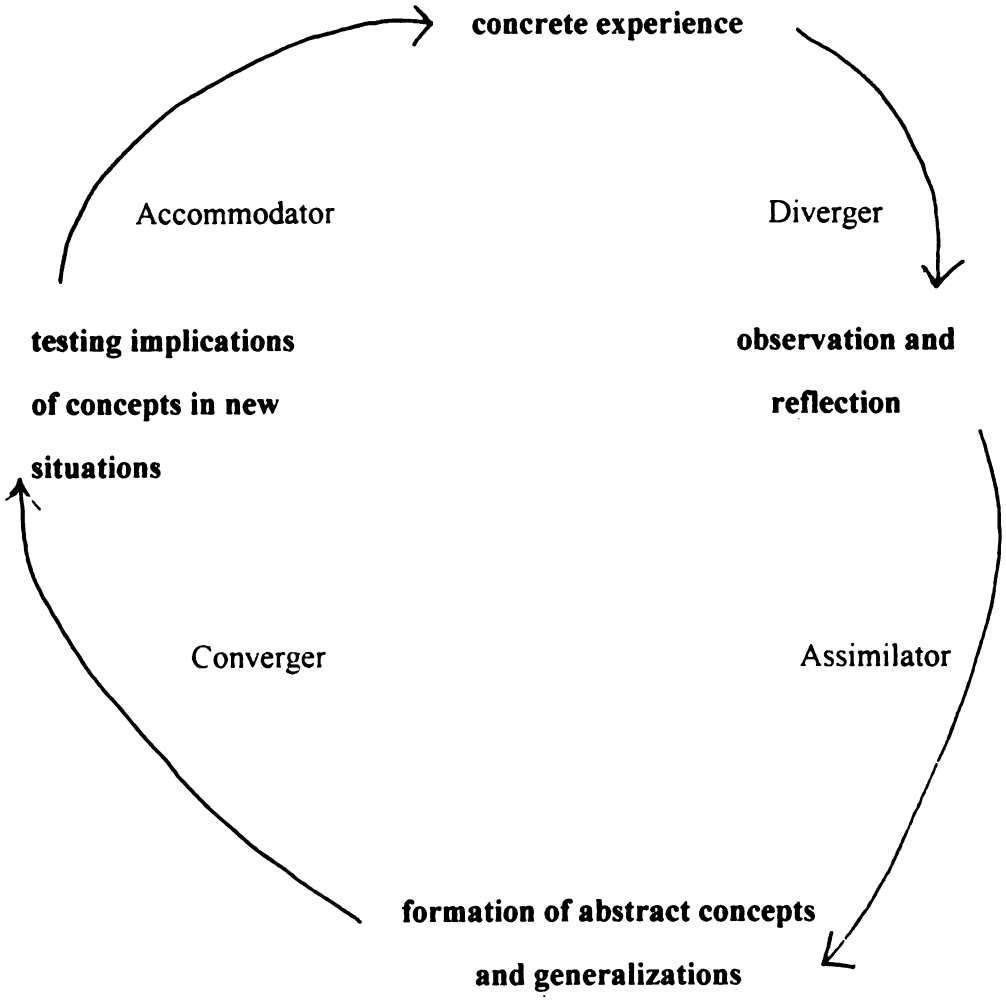

Figure 3. Kolb's concepts.

Kolb has 3 concepts to explain the aspects of learning. First, this learning process is continually reoccurring. Concepts are tested in experience and modified as a result of a person's observation of the experience. All learning is relearning and all education is reeducation. Second, the direction learning takes is governed by one's felt needs and goals. Learning experiences are sought which are related to individual goals. The process of learning is erratic and inefficient when personal objectives are not clear. Third, since the learning process is directed by individual needs and goals, learning styles become highly individual in both direction and process. In some areas, specific objectives and needs may be clear guides to learning, in other areas individuals wander aimlessly. (Kolb, 1984)

Individuals have preferences for learning and learning is affected by several factors such as abilities, traits, or intelligence. *Learning Styles* have been proposed by many authors, 21 styles have been identified. Many believe learning is based on experiences people bring to a situation. Kolb (1984) thought learning could be based on 3 modes. Mode one includes the *Performance Mode* where learning is focused on an immediate task of limited time. Mode two is a *Learning Mode* where knowledge is extended in time and space to encompass similar situations. Mode three is the *Developmental Mode* which has the longest time perspective with the strategic control of adaptation. Kolbs formed a learning style inventory based on these concepts. Studies have been done to evaluate the validity of this inventory, some support and others have found contradictions. Studies have found the 4 factors of the learning cycle present but there is intercorrelation among them. Many have decided Kolb's theory has merit (Kaskowitz, 1995).

Kolb (1984) identified four specific learning styles. Individual learners can possess one or more styles of learning. The 4 styles identified include: converger, diverger, assimilator, and accommodator. The *converger learning style* relies on dominant learning abilities of abstract conceptualization and active experimentation. The greatest strength lies in problem solving, decision making, and the practical application of ideas. It is titled

converger since a person with this style seems to do best in a testing situation where there is a single correct answer. Convergent people are controlled in their expression of emotion. They rather like to deal with technical tasks and problems rather than social or interpersonal issues. They often specialize in the physical sciences such as engineering and technical specialties.

The *divergent learning style* emphasizes concrete experiences and reflective observation. Their strength lies in imaginative ability and awareness of meaning and values. They view concrete situations from many perspectives. The emphasis of this style is on adaption by observation rather than by action. It is named diverger since a person of this type performs better in situations that need main ideas or brain storming. Divergers are more interested in people and tend to be imaginative and feeling oriented. They have broad cultural interests and specialize in the arts. Counselors, personnel managers and organization development specialists are often divergers.(Kolb, 1984)

Assimilation learning style abilities involve abstract conceptualization and reflection observation. Inductive reasoning is a strength in this style with the ability to create theoretical models and assimilation of desperate observations into an integrated explanation. This style is less focused on people and more concerned with ideas and abstract concepts. It is important to this learner that the theory developed is logically sound and precise. This learning style is more characteristic in individuals in the basic sciences and math, research, and planning departments. (Kolb,1984)

Accommodator learning style strength lies in doing things, carrying out plans and tasks and getting involved in new experiences. The emphasis of this style is on risk, action, and opportunity seeking. It is termed accommodation because it is suited for situations where one must adapt to changing circumstances. People who are accommodators most often solve problems in an intuitive trial and error manner, relying on other people for information rather than their own analytic ability. These learners are at ease with people but may be seen as impatient or pushy. Accommodators are often in

technical or practical fields, as well as action oriented jobs like marketing and sales. (Kolb, 1984)

Combining some of the concepts of Leininger's Cultural Diversity and Universality Theory, Kolb's Learning Style Theory, and an adolescent prenatal education curriculum is the framework for this project. Assessing the adolescent culture and applying a variety of learning styles to the prenatal curriculum helps the learner grasp the concepts presented by the educator. This unique combination proved to be an effective teaching method and useful tool.

Literature Review

Adolescent Culture

The adolescent is in the stage at which it is vitally important to learn how to exist in society independent of parents. The adolescent transfers independence to peers and strives to learn from them the secrets of entrance into the adult world. The adolescent often rejects traditional norms and values. Adolescence is a time of maturation, a time of role transformation from that of a child to an adult. During this time many changes occur: such as hormonal changes, physical growth, self concept formation, and gender/role development. (Montemayor, Adams, & Gullot, 1993)

According to Bernard (1961), the adolescent culture includes material symbols such as certain kinds of cars, clothes, along with paraphernalia of sports and recreation. A nonmaterial symbol includes the adolescent language. Adolescent culture emphasizes fun and popularity, popular songs reflect adolescent preoccupation with love. Political concern is not characteristic of the adolescent culture but when asked their opinion, adolescents reflect those of their class backgrounds. A substantial portion of the adolescent society is alienated and rejected by the majority of society. In recent years it appears children enter into the adolescent culture at a younger age. The adolescent culture is essentially the culture of a leisure class with no job requirement in order to be self supportive. The adolescent culture has tribal customs such as dating. Today more and

more adolescents date in groups rather than as couples. Adolescents often feel invincible to disease or even death and will enter into risky behaviors such as driving fast, having unprotected sex with more than one partner, and engaging in sports activities which are dangerous. Adolescents have hangouts or gathering places of their own. Even their jobs are different than the older population as they are employed as baby sitters, carry outs at the groceries, counselors at camps, or waiters and waitresses in restaurants. (Bernard)

According to Dieterich (1997), interviews with adolescents have uncovered adolescent's health belief perceptions and self efficacy expectations which specifically relate to pregnancy. Many adolescents stated they had little support from other persons, they felt isolated and needed help. Adolescents described medical caregivers as insensitive and poor communicators. Often there is inadequate prenatal education provided to pregnant adolescents possibly related to a lack of knowledge about how adolescents learn, coupled with the thought that adolescents do not value education. Adolescents state the fact that external barriers of transportation and cost do exist in their world since many cannot drive or cannot afford a car. System barriers of long waiting times and short visits in the delivery of prenatal care are also observed by the adolescent population. Cognitive and emotional factors including negative attitudes, fear of pregnancy, as well as birth and parenting, low self esteem, and difficulty with problem solving and decision making skills may contribute to negative adolescent health outcomes (Dieterich). If both educators and care givers can recognize these barriers, strategies could be designed to help improve adolescent health behaviors.

Adolescent Pregnancies

Adolescent pregnancy is a very complex issue which involves social values, economic status, and cultural influences which have been passed on to the adolescent through family, peers, and the norms of the community. Each adolescent's sense of self, aspirations and expectations for the future, and ability to utilize prior experience to address current and future decisions play a part in adolescent pregnancy (Zabin &

Hayward, 1993). Developmental events will determine the young person's libidinal drives and also his/her ability to resist these biological forces. Because the influences on the adolescent are powerful and pervasive, educators must recognize how extensive an intervention must be whether teaching sex education. birth control, or prenatal education. A pregnancy causes a more profound disruption on the life cycle of the mother, the younger she is. The youngest sexually active adolescents are at highest risk for accidental pregnancy leading to a unintended birth. Those at highest risk are the early adolescents who live in the poorest areas of the community, where they are subjected to the combined stresses of social, economic, and environmental deprivation. (Zabin & Hayward)

Scholl, Hediger, and Belsky (1994) found pregnant adolescents younger than age 18 are at a high risk both medically and socially. They are still growing and in competition with the fetus for nutrients. Physically, pregnant adolescents are at risk for such things as pregnancy induced hypertension, anemia, and preterm labor leading to preterm delivery. These health risks are more often untreated among adolescents since many do not seek prenatal care (Scholl et al.). Premature termination of schooling, single parenthood, repeated and unintended pregnancy, difficulties in obtaining employment , and economic dependency are common place among mothers who start child bearing as adolescents (Zabin & Hayward, 1993). Approximately 73% of births to adolescents in 1988 were unintended. Of the births to women under age 20 years, 38% are to mothers 17 years of age or younger. The impact of environmental, economic and cultural conditions are a part of the equation in adolescent pregnancy rates (Zabin & Hayward).

Adolescent pregnancy and childbirth are associated with many negative outcomes such as a higher risk of pregnancy and neonatal complications, acquiring a sexually transmitted disease, lower educational and occupational achievement, welfare dependence, marital problems, difficulty completing the developmental tasks of adolescence, and increased risk of suicide. Pregnant adolescents can have long term

physical and psychological problems. Annually 500,000 adolescent pregnancies terminate in miscarriage or induced abortion. Today 96% of pregnant adolescents who give birth keep their babies, placing these children at risk for abuse, neglect, and poverty. (Dieterich, 1997)

Prenatal Education

One way to address the rate of low birth weight babies born to adolescents and also infant deaths is to develop a comprehensive prenatal educational program targeted at the adolescent population. A study done by Slager-Earnest, Hoffman, and Anderson-Beckmann (1987), found attenders of an adolescent prenatal educational program demonstrated fewer perinatal complications and fewer obstetric and postnatal complications than nonattenders (Slager-Earnest et al.). Another program in Texas called the Northeast Adolescent Project (NEAP) done in 1990, produced similar results with fewer premature deliveries and higher birth weight infants (Opuni et al. 1994). Libbus and Sable (1991) explored the relationship between specific prenatal care education content and birth outcomes. It was noted that the lack of prenatal education and the number of preterm deliveries showed a positive correlation. It was tentatively suggested that prenatal education may lessen the risk of preterm, low birth weight infants (Libbus & Sable).

A study done by Jones and Mondy (1990) showed a significantly greater proportion of the high-treatment participants (those attending eight or more sessions) in a prenatal program for adolescents, returned for an annual family planning evaluation. A greater proportion of these adolescents also returned for post partum care (Jones & Mondy). Virtually every young mother who returned for postpartum care accepted a method of contraception. In addition to preventing low birth weight babies, prenatal classes can potentially prevent future pregnancies in this age group through use of contraceptives.

Effective prenatal education for pregnant adolescents differs in class structure, content, and teaching methods from traditional prenatal classes (Lindell, 1988). A prenatal class targeted at more educated, older pregnant women who have a significant other and or husband may not meet the educational needs of a pregnant adolescent. A pregnant adolescent has different concerns and fears as well as different issues which affect their lives and indirectly their pregnancy. It is important the education provided is geared to the adolescent's needs and addresses learning styles. The educator must be sensitive to pertinent problems and issues the pregnant adolescent may have in order to effectively teach and prepare this client for labor and delivery as well as parenting. Teaching parenting skills should begin well before the birth of a baby and can be easily tied into the child birth education program (Corwin, 1998).

A Learning Needs Assessment for Pregnant Adolescents was administered in a study by Bachman (1993), indicating that adolescents wanted to learn most about infant illness and complications during labor and delivery. Teaching strategies adolescents chose included hospital visits, parties, video tapes, films, records, and games (Bachman). Strategies that actively involve adolescents help give them a sense of control in the direction of learning and thus increase their desire to participate. Encouraging class cohesiveness, sharing feelings and nurturing should play a part in the class dynamics. Activities should be designed to increase the adolescents understanding of pregnancy, birth, postpartum, and personal care. Class goals also include increasing decision and coping skills; encouraging self esteem, confidence and communication skills (Dieterich, 1997). Materials should be sensitive to cultural diversity, socioeconomic conditions, and literacy skills.

Kolb's Learning Theory Application

Learning is primarily concerned with abstract ideas and concepts. Traditionally, learning is said to occur when there is a change in behavior and the outcomes or product are emphasized rather than the process (Arndt, 1994). Learning is the *process* of

acquiring and remembering ideas and concepts. The more you remember, the more you learn; in other words concepts come before experience. The concepts of learning and problem solving have not been treated in separate zones. Learning is considered a passive process where a teacher conducts the process while problem solving is an active process where the person with the problem tries to resolve it. The problem solver must take risks and experiment in order to come to grips with a problem. By combining these concepts of learning and problem solving, conceiving of them as a single process, we can come closer to understanding how it is that people generate from their experience the concepts, rules, and principles that guide their behavior in new situations (Kolb, 1984).

Learning style is not a new concept and educators tried in the 1970's to incorporate various new learning styles in the grade school through college classroom. Beginning in the 1960's, educators looked at various methods of learning. aware that many students were not reaching their potential skill level. Many schools changed curriculums and reformed their teaching methods. The mode of lecture only became a style of the past. According to Samples and Hammond (1985), educators found students learn by various modes, some need to read the concept in a book, others need to do an experiment to understand. Some students learn by writing a song or poem, some by visualization or sound. Many students are good at writing thoughts down while others can verbalize much easier than write. Not any one method is better than another and any one person learns from more than one style. At any given time, one half to three quarters of students in most classrooms are not learning at all near their optimum. Only one quarter of students gain the most from a single approach to instruction. Educators must try to more effectively reach all students by using a variety of teaching methods which incorporate many learning styles. (Samples & Hammond)

One person who was intrigued by learning styles and the work of David Kolb was Bernice McCarthy. She too believes "people learn first by perceiving; how we are in and take in experience and then how we process; how we react, confront, and resolve and

become the creators we are meant to be" (McCarthy, 1996, p.13). David Kolb's Learning Style Theory was utilized by Mc Carthy and her ideas help explain the theory further. McCarthy uses the 4-MAT approach: active experimentation, reflective observation, concrete experience, and abstract conceptualization. She applies them just as Kolbs did but describes quadrants 1-4. *Quadrant One* learners prefer concrete observation and reflective observation. This learner needs to know what the material they are to learn means to them personally. They like small group discussion and are very interested in people. This learner likes consensus and unity. *Quadrant Two* learners love facts, certainty, and order. They need rules and reality is described in terms of these rules. Authorities and experts are important to them but otherwise this type learner is not interested in people. *Quadrant Three* learners are interested in action, they take abstract ideas and experiment with them. They especially like laboratory science and practical applications. *Quadrant Four* learners are self discovery learners. They make decisions with ease and are very flexible. They often come to accurate conclusions with little or no logical justification. They are risk takers and often seen as inconsiderate. They are driven to apply to the outside world what they learn in the classroom. (McCarthy, 1996)

Kolb's Learning Theory has also been applied to the computer science industry. Computer experts too are looking at various learning styles and how people learn. Hypermedia is believed to accommodate different learning styles and different entry levels of skill because of its flexibility and high level of learner control. Bridging the gap between instruction, computers, and learning styles may be possible by presenting materials to be learned in a way that encompasses differences in learning style (Ayersman & Minden, 1995). Kolbs Learning Style Inventory was used by Ayersman to help examine learning in a hypermedia-assisted instruction environment. Ayersman examined possible differences in hypermedia knowledge among Kolb's four learning style groups before and after a 15 week computer course. The study posits learning style as the independent variable to find if various style types differentially apply the mental

models. Learning styles did affect certain mental model frequencies, especially the citation-frequencies of schemata. Learning style did not have a significant effect on the citation-frequencies of semantic network, concept map, or frames/scripts (Reed, Ayersman, & Kraus, 1997).

Summary

Prenatal education programs for pregnant adolescents must try to focus on a piece of the adolescent pregnancy issue, working together with other diverse programs since many avenues are needed to make an impact. If the adolescent culture can be identified, utilizing Leininger's Cultural Care Theory, programs can be created specifically to adolescent needs and problem issues. Adolescent prenatal education programs need to assess the education level of learners and create curriculums which utilize a variety of learning styles as suggested by Kolb's Learning Theory. Applying Leininger's Cultural Care Diversity and Universality Theory as well as Kolb's Learning Theory will create a curriculum which is effective for a larger number of learners. The adolescent prenatal education program will be more appealing and more adolescents will want to listen and learn. Prenatal education programs for adolescents that build trust and offer acceptable, accessible, and appropriate services can make a difference in adolescents lives. Education which shares parenting skills as well as birth control can help prevent a second pregnancy to an adolescent mother and minimize the stresses on several generations.

Project Development

For this project, a prenatal education curriculum specifically targeted at the adolescent population was created. A prenatal education curriculum from the Oakland County Health Department which they created around 1990 is used and adapted to the adolescent's needs. Permission to use the curriculum base was granted by the author, Linda Bender, RN, ICBLC and the Oakland County Health Division of Personal and Preventive Health Services.

The adolescent prenatal education curriculum includes activities which hold students attention as well as group discussion to encourage involvement. More detailed information about specific nutrients and physiology was deleted with information about health, diet, and child care emphasized. Since the risk of preterm labor and birth weight is greater in the adolescent age group, these issues are discussed as well as single parenting, relationships, schooling, and day care.

When prenatal education classes for adolescents are not meeting their needs or even appealing, they probably will not attend. Teaching strategies which involve participants are more successful with the adolescent population than didactic methods. Relevant material presented clearly, in the adolescent's language, is important. Humor helps maintain interest and can reduce adolescent's stress level when dealing with uncomfortable material (Timberlake, Fox, Baisch, & Goldberg, 1987). This curriculum incorporates these concepts.

The curriculum is based on Leininger's Cultural Care Diversity and Universality Theory(Leininger, 1991) as well as Kolb's Learning Styles Theory(Kolb, 1984). Adolescent culture is incorporated in the curriculum through music selections, vocabulary, and social issues discussed. For the adolescent pregnant population, efforts should be directed toward discussions of depression, assessment of self worth, and the value of appropriate health-care seeking (Giblin, Poland, & Sachs, 1986). The educator

must devise teaching techniques that conform to the student's cognitive level, psychological needs and social patterns (Catrone & Sadler, 1984). Some suggest learning is more difficult for adolescents as they have more stressors and also encounter school transition from elementary to middle school. Motivation to learn and attend prenatal classes may dim due to all these changes (Montemayor, Adams, & Gullotta, 1993).

At the beginning of Appendix A (see Introduction to Prenatal Education Course), the adolescent culture is described with their social and physical needs explained. By educating the instructors regarding the adolescent culture and their specific unique needs, the instructors will be able to teach more effectively.

A variety of learning styles and methods are incorporated into the curriculum to encourage learning. At the beginning of the curriculum, Kolb's theory is explained and several teaching techniques suggested (see Appendix A, Introduction to Adolescent Prenatal Education Course). Each lesson should address all of the learning styles which Kolb's suggests. Lesson one will be used as an example to show how all the learning styles are expressed. The *Converger* learner comprehends best by doing and performs best in a testing situation where there is only one correct answer. Practicing the Kegel exercises (p. 6) and the breathing techniques (p. 14) in lesson one is helpful to the Converger learner. Taking the pretest test is also another helpful method of learning for the Converger. For the *Diverger* learner, group situations and discussion is important. The Diverger likes to work in small groups. In lesson one the class is involved in a get acquainted activity where students share in small groups (p.3). This small group activity allows the Diverger to share personal experiences also, another concept they enjoy. Asking the students to help list various tests or symptoms they may have in pregnancy encourages the Divergent learner in lesson one (p. 4&7). The *Accommodator* learner loves new experiences and is a good problem solver. They gather information from other people , make their decisions, and then act on it. The breathing experience is important to the Accomodator learner. This learner can hear the lecture, decide what will be helpful

for them in labor and then try out the breathing mechanisms. The *Assimilator* likes the lecture format and learns best from this teaching technique. This learner values the experts knowledge so charts, videos, and handouts are useful (p.4,7,8,9,11,&12). Lesson one also contains the lecture format in many areas. The Assimilator learner also needs time to reflect on the information shared so a break half way through the evening provides time for these learners to talk about the concepts discussed.

The "Parenting in Pregnancy" curriculum created by Dr.Ann Corwin, Ph.D., 1998, is also incorporated in this project with the permission of the author. At the end of each weeks curriculum, one or more of the sixteen parenting concepts is inserted with detailed information for the educator which explains the concept and how this parenting skill can be incorporated into the session.

The class size is suggested to be around 12 adolescents not counting their coach. Small group sessions of 10-14 participants can be more conducive to learning and discussion (Lindell, 1988). Coaches are invited to all sessions since many students may not like to attend by themselves or do not have transportation. It was discussed whether or not to invite coaches since some may not have a coach. This will be considered for future classes but for now coaches are invited. Those stating they are without a coach are offered one if they would like. The class coordinator works with the Positive Parenting Program in the community to provide coaches.

Since the Oakland County curriculum is a six week series and to help keep costs down, the class is six weeks in length with a follow up reunion and parent support group which begins at the conclusion of the prenatal class. The support group is on going, may be attended before delivery, and is available as long as the student wishes. Parenting skills are emphasized along with discussion time for the adolescent's concerns.

At the present time the prenatal classes are held at the Ottawa County Health Department with possible classes offered through local high schools. To maintain a high level of credibility, the class is taught by an APN who has an interest in the adolescent

population, has experience in labor and delivery and/or is a certified prenatal educator. The course is free, with funding from an Ottawa County adolescent support program called COPE. Other state and local grants are possible funding sources. Currently the prenatal program is collaborating with the Early On program, applying for a Michigan grant. Wednesday evenings from 7pm to 9pm is class time with possible after school or noon hour sessions in the future. There is a 15 minute break at about 8pm or half way through the session to serve refreshments, socialize, and use restrooms. Adolescents are invited to join the class through their physicians office, school, and various hospital literature available in the community. Transportation needs are assessed when the student calls for registration, taxi money is available if needed.

Included with the six week curriculum is information about the theories applied, general instructions, a pre and post questionnaire, and post survey questions. The pre and post questionnaire is helpful in tailoring the curriculum to the student's needs, areas which are weak can be identified and more emphasis on the student's deficient areas. The post test can help evaluate student comprehension and whether further teaching or another teaching method in a certain area could have been helpful. A list of handouts is included in the curriculum with weekly agendas which are placed in a folder for each student. Childbirth Graphics is a great source for education tools such as charts, videos, slides, and handouts. The local health department health educator is another source for handouts at low or no cost.

The curriculum evaluation could include comparing it to another prenatal class. Does this specific curriculum attract adolescents? It is important to note whether the curriculum is meeting the objectives stated. Are adolescents attending the class? Are students stating they are better prepared for labor and delivery in the post evaluation? A review of outcomes would be helpful as the birth weights and weeks of gestation at time of birth are noted. Talking with the educators and getting their opinion of the curriculum

would be helpful. Did they find the packet was complete? Was the information easy to follow? What was their sense of how the adolescents responded to the materials?

Implications

Education

In education, learning styles need to be addressed as APNs instruct clients. Kolb's learning theory can be used not only in prenatal education but other areas of nursing education such as diabetic teaching or stop smoking techniques. Nursing needs to continue applying these teaching theories to their curriculums. Schools of nursing must remember the learning needs of students and develop curriculums which offer a variety of learning techniques. Providing lectures, hands on experience, work in groups, problem solving, as well as visual teaching tools in a given lesson plan can help a larger number of students grasp concepts.

The APN can play a large role in the development of prenatal education for pregnant adolescents. The skills as an educator and health expert can be utilized in this area. The APN can plan, coordinate, as well as teach this curriculum to pregnant adolescents. Prenatal education may help decrease adolescent's knowledge deficit and the number of preterm, low birth weight babies. Parenting skills can be taught by the APN and modeled in the class and support systems. The APN's knowledge regarding growth and development as well as family theory can encourage healthier relationships and families. Teaching preventative care to mothers as well as their children may have a great impact on the future health of this country. Teaching parenting skills may help increase health and decrease dysfunctional families. Primary health care settings provide a perfect environment for the APN to care for the adolescent in pregnancy and encourage enrollment in a prenatal education course. The APN as an educator or clinician would better understand the adolescent needs, wellness could be emphasized to help prevent illness as well as complications in pregnancy and or labor and delivery.

The APN can educate other health professionals, encouraging coordinated, cost effective care for pregnant adolescents. The adolescent prenatal education curriculum can be shared with other qualified APN educators who have had experience in women's health and specifically labor and delivery. Holding a seminar which explains the adolescent prenatal curriculum, will help equip others to teach pregnant adolescents. Sharing this particular curriculum may provide others with needed tools to educate pregnant adolescents. This specific adolescent prenatal curriculum is very unique as it incorporates Kolb's Learning Theory and Leininger's Culture Care Theory.

The curriculum itself needs evaluation by a group of prenatal educators every 6 months to year. As classes are taught, evaluation from the students will help improve the content and evaluate teaching techniques. This curriculum should never be considered complete and perfect but rather should continually be updated and reevaluated. As research uncovers better teaching methods and more effective ways to conduct prenatal classes, APNs can incorporated this information into the curriculum.

Research

Further research which reviews methods and styles of learning could impact future teaching methods and help create more effective prenatal education programs. Research could compare a group of students who were taught using learning style theories versus a group taught without learning style theories. Specific studies looking at the efficacy of having each student bring a coach to the adolescent prenatal classes could be researched. Do some students not attend because they do not have a coach? A group of students who have a coach could be compared to a group who did not have a coach , does one group tolerate labor and delivery better than the other? Working in collaboration with the community health department and private providers, the APN could continue to look at the affect prenatal education may have on the adolescent population and specific labor and delivery outcomes. The study done in Chicago by Slager-Earnest et al. (1987) could be expanded and updated with a larger sample over a prolonged amount of time. More

studies need to be done which attempt to show actual outcomes of these prenatal classes, collecting data on birth weights and preterm deliveries of those attending prenatal classes versus those not attending classes. Factors that motivate students to change their behavior could be studied, what causes a student to act or not act on the information she has gained. How can nurses and other health providers support the pregnant adolescent in this process? As more adolescent prenatal classes arise, a study which looks at the pregnant adolescent class attendance record would be interesting, evaluating why some do attend classes while others who are offered classes do not attend. Looking at specific issues which may affect attendance such as transportation, location of class, time of class and other variables in relation to class attendance would be beneficial in program development and future research.

Advanced Practice

The APN who is knowledgeable about the adolescent culture can be an advocate for the adolescent. The APN can help health care providers in private and clinic settings understand the individual needs adolescents have and help providers better care for these clients. Often health providers do not know how to relate to the adolescent age group and there is much misunderstanding between the two groups(Caterone,1984). Adolescents may not keep appointments or follow through with important testing because of misunderstandings. The APN can work through the prenatal classes, communicating with care providers and adolescents trying to heal these misunderstandings. Providing awareness of prenatal classes, writing journal articles, or offering seminars to health care providers regarding pregnant adolescents may help increase cultural awareness and encourage effective teaching methods.

The adolescent prenatal curriculum could be implemented in local health departments or school based programs, such as health class or noon hour pregnant adolescent support groups. Hospitals could target the adolescent population by having a class separate from the older pregnant couples. Incorporating the curriculum in primary health care offices

could make the class time more convenient, providing more comprehensive services under one roof. The lessons could be taught on a one to one basis in the student's home by a maternal support or home health nurse. Offering a variety of times and places may help increase the number of students available to participate in the class.

The APN in the practice setting can encourage the pregnant adolescent to attend the prenatal class. Pieces of the class content can be reinforced at the visits also. It is important to provide information regarding the classes to all area health care providers so proper referrals can be made. Given the evolving health care system with increased emphasis on cost containment, adolescent prenatal education can help . If adolescents know the signs of preterm labor, understand how to care for themselves in pregnancy, fewer babies will need expensive neonatal care. Insurance providers including Medicaid will see the value of the class and provide funding for the classes, enabling an ongoing adolescent prenatal program.

Product Development

Many different avenues could be taken with product development. The materials could be copy righted by the author or the materials could be given to the local health department and copy righted by their agency. The author could hold seminars for APNs qualified to teach the curriculum and disperse the curriculum at the seminar. Some regulation would be appropriate to help keep the materials of high quality and at least trying to ensure proper educators are teaching the class. Materials could be updated more efficiently if we know who has them. For now the Ottawa County Health department will have the rights to the materials, giving proper credit to the author. The class presently is being taught through the Ottawa County Health Department and has personnel who can help apply for funds to help get the program up and running.

Summary

The implications for education, research, and advanced practice are important to visualize and apply to the prenatal education curriculum for adolescents to help decrease

the number of preterm deliveries and low birth weight babies born to the pregnant adolescent population. APNs can make a difference by analyzing the pregnant adolescent situation, understanding their culture, knowing their various learning styles, and creating prenatal education programs to help alleviate the risks of adolescent pregnancy.

LIST OF REFERENCES

Arndt, M.J. & Underwood, B., (1990) Learning style theory and patient education. Journal of Continuing Education of Nursing 21(1), 28-31.

Ayersman, D.J. & Minden, A.V., (1995). Individual differences, computers, and instruction. Computers in Human Behavior 11(3-4), 371-390.

Bachman, J.A., (1993). Self described learning needs of pregnant teen participants in an innovative university/community partnership. Maternal-Child Nursing Journal 21(2), 65-71.

Bernard,J. (1961). Teenage culture. American Academy of Political and Social Science 338 (2), 24.

Catrone, C. & Sadler, S. (1984). A developmental model for teenage parent education. Journal of School Health 54(2), 63-67.

Corwin, A. (1998). Parenting in pregnancy. Program inserts presented at a Pro Ed Services Seminar approved by the Michigan Nurses Association, Grand Rapids, Mi.

Dieterich, L. (1997). Assessment and development of adolescent childbirth education to improve health behaviors. The Journal of Perinatal Education 6(1), 25-31.

George, J.B. (1990). Nursing Theories the Base for Professional Nursing Practice. East Norwalk, Conn.: Appleton & Lange.

Giblin, P.T., Poland, M.L., & Sachs, B.A. (1986). Pregnant adolescents' health information needs. Journal of Adolescent Health 7(3), 168-172.

Hamachek, D. (1990). Psychology in Teaching, Learning, and Growth. Needham Heights, Ma.: Allyn & Bacon.

Jones, M.E., & Mondy, L.W. (1990). Prenatal outcomes.for pregnant adolescents and their infants using trained volunteers. Journal of Adolescent Health 11(5), 437-443.

Kaskowitz, G. (1995). Factor analysis of the model constructs suggested by Kolb's learning skills profile. Perceptual and Motor Skills 80(2), 479-486.

Kolb, D.(1984). Experimental Learning : Experience as the Source of Learning and Development. New Jersey: Prentice-Hall.

Leininger, M.M. (1979). Transcultural Nursing. New York: Mason Publishing.

Leininger, M.M. (1991). Cultural care diversity & universality: A theory of nursing. New York: National League for Nursing.

Libbus, M.K.& Sable, M.R. (1991). Prenatal education in a high risk population: the effect on birth outcomes. BIRTH 18(2), 78-82.

Lindell, S.G. (1988). Education for childbirth: a time for change. Journal of Obstetrics, Gynecologic, and Neonatal Nursing 17(2), 108-112.

McCarthy, B. (1996). About Learning. Barrington, Illinois: Excel.

Montemayor, R., Adams, G.R., & Gullot, T.P. (1993). Adolescent Sexuality. Newberry Park, Ca: Sage.

Opuni, K.A., Smith, P.B., Arvey, H., & Solomon, C. (1994). The northeast adolescent project: A collaborative effort to address teen-age pregnancy in Houston, Texas. Journal of School Health 64(5), 212-214.

Ottawa County Health Department (1998). First Class Delivery Curriculum. Unpublished manuscript, Holland, Michigan.

Piechnik, S.L., & Corbett, M.A., (1985). Reducing low birth weight among socioeconomically high-risk adolescent pregnancies. Journal of Nurse Midwifery 30(2), 88-98.

Reed, W.M., Ayersman, D.J., & Kraus, L.A. (1997). The effects of learning style and task type on hypermedia based mental models. Journal of Educational Multimedia and Hypermedia 6(3/4), 285-304.

Samples, B. & Hammond, B. (1985). Holistic learning. The Science Teacher (29), 28-34.

Scholl, T.O., Hediger, M., & Belsky, D. (1994). Prenatal care and maternal health during adolescent pregnancy: a review and meta-analysis. Journal of Adolescent Health 15(6), 444-456.

Slager-Earnest, S.E., Hoffman, S.J., & Anderson-Beckmann, C.J. (1987). Effects of a specialized prenatal adolescent program on maternal and infant outcomes. Journal of Gynecological and Neonatal Nursing 16(6), 422-429.

Timberlake, B., Fox, R.A., Baisch, M., & Goldberg, B.(1987). Prenatal education for pregnant adolescents. Journal of School Health 57(3), 105-108.

Zabin, L.S. & Hayward, S.C. (1993). Adolescent Sexual Behavior and Childbearing. Ca.: Sage.

Appendix A

diane van noord

First Class Delivery

Adolescent Prenatal Education Curriculum

Scholarly Project
for the degree of
Master of Science in Nursing
from
Michigan State University College of Nursing

Linda Dalman
1998

The following curriculum contains the parenting education inserts from Parenting in Pregnancy: Begin at the Beginning which is a program designed by Ann S. B. Corwin, Ph.D., M.Ed.

It also contains adaptations of the prenatal class curriculum which was developed by the Oakland County Health Department.

Adolescent Prenatal Education Curriculum
General Instructions

Thank you for helping teach the prenatal education class. With the help of educators like you we can make a difference in adolescent's lives. This project is a cooperative effort of Holland Community Hospital, Zeeland Hospital, and Ottawa County Health Department. Linda Dalman RNC, SNP at Michigan State University has put this curriculum package together for her Masters Project. The project is research based, applying Kolb's Learning Theory, Leininger's Cultural Diversity and Universality Theory, and Parenting in Pregnancy by Dr. Ann Corwin (see Introduction to Adolescent Prenatal Education Curriculum). The wide variety of learning styles students may have is acknowledged and applied in this curriculum, the adolescent culture is identified. It is important all the materials in this packet are read before attempting to teach the prenatal class to understand some important teaching concepts. It is not necessary to limit the teaching methods to ones presented but rather to encourage creativity within the class room. It is important to assess how the class is responding to the teaching methods used and if the methods are not productive, different methods are encouraged.

The class list is gathered by the receptionist at the Ottawa County Health Department and the Center for Good Health at Holland Hospital. The class is free at this point so you will not have to collect money from the students. Erica Wojcik is the coordinator for the program and she will be your contact person if you have any questions. Her phone number is 393-5793. The class

is held at the Ottawa County Health Department from 7-9pm each week except for week 3 which is at the local hospital. The coordinator will take care of scheduling your room at both sites. Only invited certified child birth educators and or an APN will be teaching the courses. Your supplies will be in the room where you are presenting.

Each week there is a 15 minute break at about 8pm and a snack is offered, the coordinator will supply this for you. We try to keep the snack simple and nutritious for the students. It is important beginning the first week that name tags are provided for instructors and students. Time for socialization in the group is beneficial since part of the goal of the class is to provide a support system for these teens. Time at the beginning, break, and at the end may help encourage socialization and support. Try to get to know the students and any specific concerns they may have. Music at the beginning and during break may also provide a more relaxing atmosphere. Folders for each student with class highlights and specific brochures will be provided for students by the coordinator. Childbirth Graphics is an excellent resource for most of the flip charts and other supplies. Also the health educator in the local health department was able to provide at minimal cost, other pamphlets for the class. It may be most helpful to have students keep their folder at the class site for the entire 6 weeks and take them home after the last class. Also "What to Expect When Expecting" is a book you may offer to the students. Many receive this book from their health care provider but if students did not, they may have one at no charge.

Each weeks curriculum is a different color and at the end of each weeks session are "Parenting in Pregnancy" forms. Please read these and try to

incorporate the concepts discussed within the curriculum where noted. An asterisk will help identify appropriate areas in the curriculum.

Please hand in the pre and post tests and evaluation forms at the end of the session. Use the pre and post tests to help determine class needs and help structure the class objectives. It is important to include information tailored to the students needs. Give completed tests to the coordinator. Thank you again for assisting with this important program.

Adolescent Prenatal Education Board

Introduction to Adolescent Prenatal Education Course

This prenatal class was created to target the adolescent population, helping them cope with pregnancy, labor and delivery, as well as expand their parenting skills. The class was developed to incorporate parenting skills along with the labor and delivery concepts, utilizing ideas and techniques used in labor and delivery to assist them later in making crucial parenting decisions. The curriculum combines learning styles with the adolescent culture, developing a plan which adolescents understand and is attractive. As instructors it is important we first of all understand the clients we are teaching in order to be effective educators. Second, we must develop a curriculum which is taught so the students can grasp the concepts presented. Third, the curriculum must present material which the students need and desire to learn, addressing the most pressing issues at hand as in this case, parenting as well as labor and delivery.

The adolescent culture is often thought of as a culture within itself, so very different from the child or adult in our society. Utilizing Leininger's Cultural Care and Universality Theory, the adolescent culture can be understood. If we do not understand or educate ourselves about the culture we are addressing, we will not be effective educators. We must understand their concerns, what is important to them. The adolescent is at the stage where it is vitally important to learn how to exist in society independent of his/her parents. The adolescent often rejects the traditional norms and values, looking to peers for these norms and values. Adolescents have their own

language, values, clothing style, music, and goals in life. Adolescence is a time of maturation, transformation from child to adult. Many hormonal changes occur, physical growth, self concept formation, and gender/ role development. As educators we need to try to communicate in ways adolescents will listen and can understand, sometimes using their language or music. It is important we acknowledge adolescents values and goals, helping channel them into productive lifestyles and good outcomes. Recognizing emotional factors and fears, helping them problem solve in their world and making decisions from their perspective is important.

This program combines adolescent culture or Leininger's Theory with specific learning styles, as described by David Kolb's Learning Theory. People learn in different ways, not all are able to learn from a lecture format, where tests are given with only one right answer, but some do. Some need visual helps such as pictures or diagrams to understand concepts. Some learn by trial and error so problem solving works best or hands on manipulation and experimentation. Others learn best in a group setting, discussing the issue at hand. Some sit back and listen, observing what is going on, absorbing the concepts and is later able to put the whole picture together for everyone. David Kolb felt this was very true and developed a theory regarding learning styles. No one person will have only one style but rather a combination of more than one. He described some learners as **Convergers**, who learn by doing. These learners will want to try to feed a doll in the class room, perform the baby bath demonstration and practice the breathing techniques. The **Diverger** has a great imagination and looks at the meaning and values of things. These learners work well in groups, developing ideas and

brainstorming so it is important to divide the class in small groups on occasion and allow brain storming. Involving the students with creating a list of symptoms they have had in pregnancy or tests they have had helps this learner grasp concepts. The Diverger also likes to share their experiences as they relate to topics discussed. The **Assimilator** looks at concrete concepts, everything must be logical and without deviation. A lecture format is best for the Assimilator learner. Graphs, videos, and charts may be helpful as well as a tour of the hospital or health department. During a break this learner can discuss topics discussed with peers and feel even better about the process. The **Accommodator** loves new experiences and is a good problem solver. They gather information from other people, make their decisions, then act on it right away. The Accommodator likes to experiment so letting them hold a doll and try various feeding positions and techniques will be helpful. Having this student pack a diaper bag for the baby or a suitcase to bring to the hospital would be a great learning experience.

Besides identifying learning styles and adolescent culture concepts, parenting is also presented in this prenatal curriculum. Dr. Ann Corwin has developed "The Parenting in Pregnancy" curriculum and this has been incorporated into the adolescent prenatal education. The tools given will help include these sixteen parenting skills into the lessons. The skills of parenting and the development of a family is often overlooked in prenatal education. Adolescents have an especially challenging parental role since they are often single parents with multiple social concerns. "Parenting in Pregnancy" introduces an enlightening set of parallels between labor and delivery concepts with those of being a parent.

This adolescent prenatal education curriculum, utilizes the concepts suggested and hopefully can help adolescents learn and understand the labor and delivery process as well as parenting skills they will need in the future. Educators can make a difference in adolescents lives, helping them deliver full term healthy babies and become effective parents.

FIRST CLASS DELIVERY
Your Baby and You
Class I

bjectives

1. List three ground rules for the group.
2. Support systems identified
3. Identify basic female reproductive anatomy.
4. Describe three changes which occur in a woman's body during the last trimester of pregnancy.
5. Identify four emergency symptoms during pregnancy which require contacting the medical care provider (doctor, nurse midwife).
6. Explain why a balanced diet is crucial for mother and baby during the last trimester of pregnancy.
7. Identify healthy food selections using the Food Guide Pyramid.
8. Describe habits that can be harmful to the fetus.
9. Explain how the "stress response" can adversely affect a woman's labor.
10. Describe the Fear-Tension-Pain cycle and how this cycle can be broken.
11. Discuss specific adolescent concerns, single parent, stressors
12. Demonstrate total body relaxation technique.

lass Overview

ıtroduction and discuss ground rules
Discuss importance of confidentiality
Support systems identified
Review female reproductive anatomy
The changes and discomforts typical of the last trimester of pregnancy and how to deal with them.
Fetal development during the last months of pregnancy.
Habits that can harm the fetus.
Nutrition and its importance for a healthy pregnancy and baby.
ntroduction to the Process of Childbirth.
The Stress Response and Labor.
The importance of relaxation during labor.
Discuss specific concerns adolescents may have in pregnancy
ıntroduction to breathing techniques for labor.

QUESTIONS	CONTENT	ACTIVITIES
	I. INTRODUCTION	Name on Board
	A. General Welcome: I am hoping that this class will be an enjoyable and informative learning experience for you as you prepare for the birth of your baby. The focus of this class is on you. I want to meet your needs.	Telephone number on board 393-5793 Attendance sheet Class roster
	B. Goals of Expectant Parent Classes: 1. To assist adolescent expectant parents in making their childbirth a positive and rewarding experience. 2 To provide information which will prepare expectant parents for the birth of their child. 3. To assist expectant parents as they begin to learn the skills they need to enjoy parenting and caring for their baby. 4. To assist identification of support systems (see support systems insert) 5. Assit them in identifying personal goals. **See insert Parenting in Pregnancy "Childbirth Education Goals"*	Name tags (with due dates) *Music playing while students arrive. Transportation problems?
	C. Introduction of Instructor: (Education, experience)	
	D. Setting: 1. Building-Restrooms, phones, no smoking including on building grounds, security. 2. Break - (availability of refreshments)	
	E. Class and Teaching Methods: 1. Content of the six classes and dates	Handout: Overview of Expectant Parent Classes

2. Time: 7:00 p.m. - 9:00 p.m.
3. Informal method of teachihg using questions, group discussion, demonstrations, posters, lecture, videos, slides, and handouts each week.
4. We can discuss various issues so that you can make choices that are comfortable for you and your family.
5. Location
6. Possibility of cancellation of class due to snowstorm (local school closing-class is canceled).

F. "Ice Breaker" Activity:
After the instructor introduces herself and the general information about the class, have the class members interact and identify some things they have in common. This will help them to feel more comfortable. Possible "ice breakers" include:

1. Paired Interviews:
Have people pair off, interview, and then introduce each other to the class. It is usually better to have individuals (rather than couples) talk to someone they do not know. The interview can be unstructured, such as finding out three things about the other person, or the instructor can suggest topics. Information about the pregnancy (due date, hospital) is an obvious choice. Open-ended categories like advice they have received, positive things about being pregnant (or a father), what they are looking forward to doing with the baby, what names they are considering, their biggest concerns, are also good interview questions.

**See insert Parenting in Pregnancy "Support Systems"*

QUESTIONS	CONTENT	ACTIVITIES
	G. Expectant Parent Class Questionnaire: It can be handed out as people arrive or during class. It can be used as a teaching tool to introduce subjects that will be covered.	Survey for prenatal class Prenatal Pre-Test
	II. THE LAST MONTHS OF PREGNANCY	
	A. Introduction We are going to talk about: 1. What is happening to the mother's body? 2. How is your baby developing? (Fetal development) 3. What can you do to promote your (mother's) good health and the health of your baby?	Human Anatomy
	B. Review Anatomy of femal body	Flip chart - use to view anatomy of female body.
	C. Pregnancy generally lasts for nine calendar months, or 40 weeks from the start of your last menstrual period. Pregnancy is divided into trimesters-1st three months, 2nd three months, and the final three months ("last trimester")	"With Child" Childbirth graphics - follow changes while discussing stages of pregnancy.
What kind of discomforts have you experienced? What have you done to cope with pregnancy changes?	D. Many changes happen to a woman's body while she is pregnant! Some of the normal changes experienced by many women during the last months of pregnancy are: <u>Shortness of breath:</u> Your enlarged uterus starts to push against the diaphragm, crowding the lungs. <u>Bigger breasts:</u> Your breasts enlarge during pregnancy in preparation for breastfeeding. 1 to 3 pounds of the weight you gain during pregnancy will go to your breasts. <u>Heartburn and Indigestion:</u> Your growing uterus can crowd your stomach, which can push stomach acid into your esophagus, giving you heartburn	Ask students what changes they have experienced.

Stretch marks: Many pregnant women develop reddish, slightly indented streaks on their breasts, hips, and/or abdomen. They are caused by the skin being stretched. No cream or oil will prevent or alleviate them, but they do fade after delivery.

Swelling of the Hands and Feet: Mild swelling is normal due to the necessary increase in body fluids in pregnancy, especially in the evening. Marked and rapid swelling can indicate a problem (call Doctor).

Nasal congestion (stuffiness) and nose bleeds: High levels of the hormones estrogen and progesterone circulating in the body, during pregnancy increase the blood flow to the mucous membranes of the nose, causing them to soften and swell, much as the cervix (opening of the uterus) does in preparation for delivery.

Backache: Your growing abdomen strains back and abdominal muscles.

Varicose Veins: Normal healthy veins carry blood from the extremities to the heart. They work against gravity so veins have a series of valves that prevent back flow of blood. These valves may not work well during pregnancy due to more pressure on leg veins, expanded blood volume, hormone changes that relax the muscle tissue in the veins.

Constipation: The hormones in your body relax the muscles including the muscles of the bowel, and can cause constipation. The pressure of the uterus also slows bowel activity.

Hemorrhoids: These are varicose veins of the rectum. They can bleed. These are common during pregnancy but should be diagnosed by your doctor/nurse midwife.

QUESTIONS	CONTENT	ACTIVITIES
	Frequent urination: Your body and the uterus put pressure on your bladder, causing you to urinate more often. Some women also experience "stress incontinence" where urine is actually leaked when they laugh or cough.	
	Kegel exercises: can help lessen this. Kegel exercises strengthen the muscles in the vaginal and perineal area which are important during labor and delivery. These exercises can also help you to recover more quickly after having your baby.	Encourage students to do Kegels during class discussion.
	HOW TO DO KEGELS: Firmly tighten the muscles around your vagina and anus, and hold them as long as you can, working up to 8 to 10 seconds. Slowly release the muscles and relax. Repeat this at least four more times. Try to do this exercise in sets of five 10-second contractions at least ten times a day.	
	Fatigue and sleepiness: are common. Being pregnant is hard work and sleeping at night can be difficult due to discomforts of pregnancy and worries about the upcoming arrival of your baby.	
	Braxton-Hicks Contractions: These are "practice" contractions of you uterus that become more frequent as pregnancy progresses. Braxton-Hicks contractions are not true labor, but they can be difficult to differentiate from premature labor. Tell your doctor/nurse midwife about them. Report the contractions immediately if they are very frequent (more than 4 per hour) or accompanied by pain (back, abdominal, or pelvic) or any unusual vaginal discharge.	

BE SURE TO ASK YOUR HEALTH CARE PROVIDER WHEN YOU HAVE ANY QUESTIONS ABOUT ANY DISCOMFORT YOU ARE EXPERIENCING!

See insert - Parenting in Pregnancy "Change"

QUESTIONS	CONTENT	ACTIVITIES
Do you have your doctor/ clinic/nurse midwife's telephone number easily available? (In purse, on refrigerator, etc.)	E. POSSIBLE EMERGENCY SITUATIONS: These symptoms should be reported to your doctor, nurse midwife, or clinic RIGHT AWAY! 1. Bleeding or spotting of blood from the vagina - with or without pain. 2. Fluid from the vagina - it may be a "sudden gush" or it may feel like a drip. (Amniotic sac - "Bag of Water" rupture) 3. Persistent nausea and vomiting. 4. Severe, persistent headache. 5. Marked swelling of the hands and/or feet. 6. Fever and/or chills. 7. Spots before the eyes (seeing spots) and/or double or blurred vision. 8. Dizziness and/or fainting. 9. No baby movement ("fetal movement") or a marked decrease in baby movement. (In late pregnancy this would be considered less than 10 movements felt in an hour while mom is resting). 10. Persistent dull pressure or pain in the lower back, abdomen, or thighs (possible premature labor - labor occurring before 37 weeks). 11. Uterine contractions or cramps with regular pattern that continue for an hour (may or may not be painful). 12. Persistent abdominal pain. III. How Is Your Baby Growing? - Fetal Growth and Development A. During the last trimester of pregnancy: The fetus grows very rapidly in the last trimester. The baby's cells are increasing rapidly in both number and size. This is a critical period!	Signs of Premature Labor pamphlet Carrying a New Life (series of pamphlets) Ask students to follow along in their signs of premature labor pamphlet. Students help create a list of signs.

QUESTIONS	CONTENT	ACTIVITIES
	Month 7: The fetus is about 2 ½ to 3 pounds and around 15 inches long by the end of the month 7. It can kick and stretch. It can open and shut its eyes, and see light and dark. The fetus can hear well and suck its thumb. The bones begin to harden. The brain is growing rapidly.	
	Month 8: By the end of month 8, the fetus is about 5 pounds and 18 inches long, and is gaining almost ½ pound per week. The brain and nerves continue to grow and mature. The arms and legs become smooth and plump. The lungs are maturing and begin to produce a liquid to help prevent them from collapsing after birth. The baby begins to acquire immunity from infections because mother's protective antibodies are passing through the placenta into the baby's bloodstream. This immunity lasts a few months after birth. Breastfeeding can enhance this temporary immunity. Most babies (not all) will be head down in the uterus by the end of the 8th month.	
	Month 9: The baby continues to gain ½ pound per week. The bones are still soft and flexible to help the baby be born more easily. A layer of fat is being deposited that will help the baby to adjust to temperatures outside the uterus. Most babies are between 18 to 20 inches and 6 to 11 pounds at birth.	Set out books on fetal development for browsing. Childbirth graphics - flip chart - good visual aide
B.	What Is The Placenta? The placenta is the organ that develops during pregnancy to transfer nutrients and oxygen from mother to baby, and take waste materials away from baby. It also produces hormones that support the pregnancy. Certain viruses and drugs can cross the placenta and get into the fetus system and can harm the fetus.	Fetal Model with placenta

What is the Umbilical Cord?
Fetal blood travels to the placenta and back to the fetus through the umbilical cord, which contains 2 umbilical arteries and one umbilical vein. It is stiff, like a full garden hose, with blood flowing through it at about 4 M.P.H.

What is the Amniotic Sac?
It is the "bag of waters" that cushions and protects the fetus. The amniotic fluid is salty. The fetus swallows it freely and fetal cells slough into the fluid. An amniocentesis is a test that removes a small amount of this fluid to examine the fetal cells for any abnormalities. The amniotic sac usually breaks open during labor, but sometimes this happens before labor. This is called "premature rupture of membranes". (If you think this has happened, you need to call your doctor!)

IV. What are some things you can do to help your baby grow well during these last months of pregnancy?

Pamphlet: About Pregnancy and Drugs

Your baby depends upon you to make healthy choices about what you put into your body - and your baby's body.

A. The Don'ts - Habits That Can Harm Your Baby

Ask adolescents to help list "don'ts" in pregnancy

1. Don't Smoke: Smoking causes constriction and damage to the blood vessels of the umbilical cord, decreasing the flow of blood, oxygen, and nutrients that the fetus needs. Smoking increases the risk of premature labor and birth, and the risk of having a low birth weight baby with weak lungs. The dangers of smoking while pregnant continue even after the baby is born - higher risk of SIDS (Sudden Infant Death Syndrome), asthma, respiratory infections, growth problems. It is hard to stop but it is worth trying.

QUESTIONS	CONTENT	ACTIVITIES

2. Don't Drink Alcoholic Beverages: Alcohol reaches the baby quickly. NO one knows if there is a safe number of drinks, so it's best not to drink at all when you are pregnant. Drinking can affect the way your baby's brain and body grow.
   FAS - Fetal Alcohol Syndrome - A pattern of birth defects that is due to mother drinking alcohol during pregnancy.
3. Don't Use Illegal Drugs: Cocaine (crack), marijuana, and other illegal drugs cause many serious health problems for both baby and mother.
4. Limit Your Intake of Caffeine: Coffee, tea, colas, chocolate, Mountain Dew. Try not to have more than 1 or 2 cups of coffee (or caffeine beverages) per day. We don't know if high caffeine intake can harm babies. There is some evidence that mothers who ingest a lot of caffeine may have babies who show signs of withdrawal - "jittery behavior" -right after birth. Some fetuses of these women have irregular heartbeats.

Have any of you talked to your doctor or APN about using medications while you are pregnant?

5. Get All Medications Approved by Your Doctor: Be sure to ask your doctor or APN before you take any medicine. Some medications can be harmful to your baby and also to you while you are pregnant.

B. Good Nutrition- Another Way You Can Help Your Baby to Grow Well in These Last Months of Pregnancy is to Eat Good Foods:

1. The last trimester of pregnancy is crucial in terms of the mother eating well. Nutrient needs peak in the last trimester, especially for protein, because the baby's cells are increasing rapidly in both number and size. Especially important is the brain cell development and the maturing of the neuromuscular system.

QUESTIONS	CONTENT	ACTIVITIES
	2. Routinely skipping meals may actually impair brain development by quickly inducing ketoacidosis. (Break down of stored fat for energy produces acetone which is toxic to the nervous system of a developing baby). Some women are upset as they see their weight gain during the last trimester. Remember, your baby grows from about 2 ¼ pounds to 7 ½ pounds in the last three months, and your body accumulates fluids. This is not a time to skip meals and diet!	
	3. Gaining the right amount of weight is IMPORTANT! It is healthy to gain weight during pregnancy. Most women gain 25-35 pounds. DO NOT diet to lose weight. Dieting to lose weight can hurt your baby. You would not skip your baby's feeding after he is born. Your baby needs to eat regularly now, too!	Handouts: Eating For Two Iron Food Pyramid
	The three R's for Healthy Eating During Pregnancy: *Eat the RIGHT FOODS *Eat the RIGHT Amounts of to gain weight. *Eat at the RIGHT time. Eat regular meals and snacks.	WIC Pamphlet
	4. The Right Foods - See Food Guide Pyramid while you are pregnant Pamphlet: Food For A Healthy Pregnancy	Review pamphlet with students
	**Insert Paretning in Pregnancy "Nutrition ... How to feed a family"*	
V.	What is Labor?	
	You are all here because you want to learn about child birth! We are going to start to talk tonight about labor - what it is, what you can do to help yourself/your partner during labor.	
	We will continue to learn more about the whole process of child birth - labor and delivery - and what you can do to prepare for in the next few weeks.	

QUESTIONS	CONTENT	ACTIVITIES
	A. Labor: Is the hard work that a mother does in order to bring her baby into the world. Giving birth may be the hardest work you, the mother, will ever do in your life. It can also be an extremely exciting and satisfying experience!	
	B. What Happens During Labor?	Cloth Doll with Knit Uterus and Placenta
	1. The work of labor is concentrated in the uterus, where your baby lives and grows for nine months. When the time is right, the uterus, which is a big muscle, pushes the baby out into the world. The uterus is what is called a "smooth muscled" organ, which means it works automatically, without you having to think about it (like your heart).	Cervical Dilatation and Effacement Model
	2. Labor progresses through a series of contractions (shortenings) of the uterine muscle. These contractions change the shape of the uterus from that of a big, round jar with a long, narrow neck (like an upside down gallon jug) into a wide mouthed open jar (like a mayonnaise jar).	Demonstrate labor process, using models
	3. The opening of the uterus, the CERVIX, is first drawn up (thinned) or "effaced" into the body of the uterus, and then the mouth portion is opened, or "dilated". (1st Stage of Labor). When this happened, the baby can be pushed out of the mother's body. (2nd Stage of Labor)	
When you think about labor, how do you feel? What do you worry about?	4. Labor is painful for most women. Every woman's experience, every woman's labor is unique. 5. There are things that you, the mother, can do during childbirth that can help you to work with the process of childbirth which your body is naturally capable of doing! *This is a normal process! Women have been giving birth for thousands of years.*	Discuss questions

QUESTIONS	CONTENT	ACTIVITIES
	VI. The Stress Response and Labor	
	A. When people feel pain, often they become anxious and tense, and afraid.	
	B. When these things happen it causes your blood to flow away from your uterus, to your tense body. Less blood flow to your uterus and placenta is not good during labor. It means that less oxygen is getting to your uterus.	
	C. Because your uterus is not getting enough blood and oxygen, it cannot work as well. Your uterine contractions become less effective. Labor can be prolonged. It lasts longer when you are tense and afraid because high levels of tension prevent your contractions from opening up the cervix.	
How does it feel when you tense your body, or a part of your body?	D. Pain—Tension—Fear cycle This cycle is self-perpetuating. We want to interrupt this cycle during labor by using coping techniques that we will be talking about.	Have class participants tense their bodies for 10 seconds, to demonstrate how tension can hurt.
	These techniques include: 1. Relaxation #1 Technique! 2. Knowledge and Preparation 3. Comfort Measures (Massage, position changes, focal point) 4. Support (Labor partners, medical and nursing staff) 5. Breathing techniques 6. Medication during labor	
	E. Relaxation Is The Primary Technique for keeping you comfortable during labor! **See Parenting Pregnancy handout - Progressive Relaxation*	
	The more relaxed you can be during labor, the less your labor will hurt. Your body, especially your uterus, works better when you are relaxed. Why?	

RELAXATION RESPONSE- When you relax
*your heart rate slows
*your blood pressure lowers
*your breathing (respiration) rate slows.

Blood flows with needed oxygen back to your uterus and placenta and also to your baby! The uterus can work better and your contractions become more efficient. You conserve your energy rather than waste it in unnecessary tension and worry.

F. BREATHING TECHNIQUES for labor work hand-in-hand with relaxation. When you are very relaxed, your breathing tends to be calm and regular. When you are tense, deliberately slowing your breathing can help you to become more relaxed. Breathing techniques can help women to relax.

VI. Introduction To Breathing Techniques For Labor — Practice with class.

A. The "Relaxing" Breath - also called the "Cleansing Breath":

-Take a deep slow breath at the beginning and the end of each contraction
-Inhale slowly and deeply through your nose. (If you have a stuffy nose, it is fine to breath in and out through your mouth).
-Exhale slowly through your mouth.

B. Slow-Paced Breathing:

Have participants practice these methods with instructor.

You can try this breathing pattern when you need to concentrate on breathing to help you to relax during contractions. Your purpose is to try to breath slowly, about half as fast as you normally breath. You will probably do about 6 to 10 breaths per minutes (Partners can time you if you'd

like). This is the most relaxing and energy-conserving of all the breathing techniques.

CHOOSE THE LEVEL OF BREATHING THAT FEELS THE MOST RELAXING AND COMFORTABLE FOR YOU.

VIII. Video - Possible selections
"Onset of labor"
"Teen Labor and Delivery"

First Class Delivery
Pre and Post Questionnaire

1. What is the cervix?
   a. an opening to the uterus
   b. the cut that the doctor makes to allow the baby to be born
   c. fluid that surrounds the baby
   d. the way the baby eats inside the mom

2. It is OK to drink 1 beer a week during your pregnancy. T F

3. Fetal monitoring would measure:
   a. number of hours until delivery
   b. mother's heart rate
   c. size of babies head
   d. spacing and timing of contractions

4. How can your coach help you decrease the pain during your labor?
   a. let the nurse know when you need something
   b. do not criticize her
   c. help you time contractions
   d. all of the above

5. What is a sign of labor?
   a. vomiting
   b. contractions that are irregular and short
   c. pressure in the pelvic area
   d. contractions that are regular and closer together

6. Why is a caesarean section done?
   a. abnormal position of baby
   b. fetal distress
   c. baby's head is too large
   d. ineffective contractions
   e. all of the above

7. How often do you feed a newborn?
   a. whenever the baby is hungry
   b. every 4 hours
   c. only during the day
   d. when you eat your meals

8. How do you stop your baby from crying?
   a. spanking
   b. cuddling your baby
   c. holding the baby while taking a ride in the car
   d. play loud music

9. What is a normal characteristic of a newborn?
   a. having a cone shaped head after birth
   b. enlarged genitals
   c. yellow skin
   d. a and b only

10. It is OK to have sex without using birth control during the 1st six weeks after delivery. T F

11. When is it not safe to have sex during your pregnancy?
   a. the last three months
   b. after the water breaks
   c. all during pregnancy
   d. if there is a risk your partner has an STD
   e. b and d

12. What services are provided at the Ottawa County Health Department for you and your baby?
   a. birth control supplies
   b. well baby check ups
   c. free immunizations
   d. parenting education
   e. all of the above

13. I am most fearful of_____ in this pregnancy and on a scale of 1-10 (1 means afraid; 10 means most afraid) I would rate my level of fear at a _____.

Parenting in Pregnancy

...begin at the beginning

CHILDBIRTH EDUCATION GOALS

If parents can see Childbirth Education as a training ground for postpartum parenting through identification of all the connections in both processes, JOB TRAINING for postpartum parenting will become part of their goal in labor and delivery.

PURPOSE:

To help new parents understand why Childbirth Education is so important to their future parenting endeavors.

GOAL:

To outline the purpose of Childbirth Education using the five "KEY TERMS" to describe how the logical birthing process occurs and how each is paralleled in postpartum.

DISCUSSION:

Introduction of Instructor—

Focus should be on family experience rather than qualifications. Instructor may say, "The most profound qualification I have is that I've had a child myself and experienced the joys and hardships of becoming a family".

Introduction of the five "Key Terms"—

- SUPPORT

  Labor: Finding resources to fulfill mom's need to cope with pain.

  Postpartum: Finding resources to help cope with the baby's needs.

- DISTRACTION

  Labor: Keeping mom occupied with something else rather than focus on the pain.

  Postpartum: Keeping baby occupied with techniques to calm them or protect them from overstimulation.

- COMFORT

  Labor: Finding ways to help mom cope with her discomfort and soothe herself,(i.e. changing positions, urinating, etc.).

  Postpartum: Providing objects for the dependent baby to soothe itself (i.e. fingers, pacifier, security blanket or object, etc.).

- RELAXATION

  Labor: Mom must release her working muscles aside from the uterus to conserve energy.

  Postpartum: Parents must use the techniques learned in Childbirth Education to help combat sleep deprivation. Focus on getting back to sleep rather than on how much sleep they have lost.

- DISCIPLINE

  Labor: Teaching mom to react differently than she normally would when she feels pain; using coping skills to manage her behavior.

  Postpartum: Recognizing that babies are not born with the ability to manipulate parents with their behavior (They do not cry to make parents angry). After six months of age, baby can be taught to change by replacing unwanted behaviors with appropriate behaviors.

GOAL SETTING:

Parents are given the opportunity to establish their own goals for Childbirth Education (a birth plan) and their role as new parents (a parenting plan).

Parenting in Pregnancy

...begin at the beginning

SUPPORT SYSTEMS

An insert designed to enhance the "Introductions" phase of your Childbirth Education curriculum.

Everyone in this room will have children basically the same age as yours, will be attending the same schools and seeing the same doctors, and will be ultimately responsible for the healthy growth and development of this community. Without a support system for your family, you as parents can become isolated, resulting in a feeling of helplessness. Thus, this group can be an important source of security and social support.

PURPOSE:
To begin the bonding process among new groups of families and introduce the support system concept.

GOAL:
To encourage participants to meet and get to know as many new couples as possible at the first class.

DISCUSSION:

Couples Interaction—

Each couple introduces themselves to other parents, asking these questions:

- Where do you live?
- Who is your physician?
- When is your due date?
- Have you chosen a pediatrician? (How did you come to that decision?)
- What jobs do you hold outside the home?

Facilitated Discussion—

The following questions are graphically displayed without the answers:

"What does a mother need to learn about her body in labor that her child needs to learn in the first year of life?"

(*Answer:* TRUST)

"What does a coach need to provide for a mom in labor that a baby needs from its primary caregivers in the first year of life?"

(*Answer:* DEPENDABILITY)

OTHER RESOURCES:

- Labor and delivery support staff (nurse, doula, midwife, etc.)
- Obstetrical and pediatric support
- Postpartum groups
- Family and friends
- Religious groups
- Childcare providers

Parenting in Pregnancy

...begin at the beginning

CHANGE

The Key to Progress in Labor and Postpartum

People are inherently resistant to change. but change is necessary in pregnancy; change is necessary in birth, and change is necessary in parenting. If prenatal parents can embrace and welcome the change, they will begin their family with a positive force.

PURPOSE:
To parallel the changes a pregnant and laboring woman's body must undergo, with the changing roles couples must undergo in order to become parents.

GOAL:
To help parents identify and more readily accept these necessary changes.

DISCUSSION:
Physiological Change

UTERUS—*the involuntary muscle with the "mind of its own".*
Some of you will have children that remind you of the uterus! They don't seem to listen to your directions.

CERVIX—*the opening to the uterus that changes through a slow, deliberate, stretching process.*
Your job as a parent is like the cervix. It takes slow, deliberate time to raise children and everyone stretches and grows through the experience.

CONTRACTIONS—*no two are alike, they always come, they have a powerful presence, and eventually calm down.*
No two children are alike, they have a profoundly powerful influence in your life, and no matter how much they "act up" they eventually calm down.

KEGEL—*the voluntary muscle crucial to control in labor and postpartum.*
A mother's awareness of her kegel muscle helps her control her delivery and recovery. Reminder notes to exercise the kegel gives good practice for using notes to remind parents of what needs to be done for their children and how they need to take care of their parental relationship.

UMBILICAL CORD—*the physical attachment the baby has with its mother for survival.*
The psychological and physical reattachment in postpartum is also vital for baby's survival.

PLACENTA—*the nutritional source for baby and the vehicle for waste material.*
After the baby is born, all these functions are transferred to the parent. Parents need to consciously nourish, change waste, and attach to your newborn.

Necessary Change: The Parallels for Prenatal & Postpartum

A change in a mother's body requires movement.
Everything in a mother's body shifts and moves to adjust to the baby.

In pregnancy, movement means health (unless contraindicated by their physician).
Movement allows for pain reduction and the reassurance that the baby is healthy through kicking.

In labor, movement means progress.
A woman may need to change positions to adjust to her perception of pain.

In parenting, movement means change.
Everything in new parent's lives has to shift and move to adjust to a new baby. When a parent is stuck in a painful situation with their child, one of them needs to change their behavior or make a "move" in order to alleviate the problem at hand.

Parenting in Pregnancy

...begin at the beginning

NUTRITION... HOW TO FEED A FAMILY!

You are what you eat says it all! In pregnancy, literally what a mom puts in her body has everything to do with the health and welfare of her unborn child and herself. In postpartum, good eating habits will affect the health of the entire family for a lifetime.

PURPOSE:

To understand that good nutrition is important both before and after the birth of the child.

GOAL:

To introduce the concept of "modeling"—allowing parents to see how their eating habits affect and form the eating patterns of their children.

DISCUSSION:

Ask parents:

"WHAT ARE YOUR FAVORITE FOODS?"

Point out the differences in likes and dislikes and how texture, smell, and taste contribute to individual preferences in food.

"WHAT DID YOUR MOTHER SERVE YOU TO EAT THAT YOU LIKED THE MOST? (LEAST?)"

Ask also when mom or dad served this food, identifying memories associated with eating.

"HAVE EATING HABITS CHANGED WITH PREGNANCY?"

Did you think more about what you could or should eat or not eat?

"WHAT DO YOU WANT YOUR KIDS TO EAT? AND WHY?"

AWARENESS

The conscious eating habits in pregnancy should transfer to postpartum, so parents can become more aware of the nutritional needs of their children.

OBSERVATION

Help parents understand that eating will be paramount to their postpartum experience with their child. How much they eat, how they eat, when they eat, how they digest, and how their bodies respond to food (weight gain) are part of the daily routine.

PREPARATION

Prepare parents for the changing patterns of eating that are "normal".

Modeling allows good nutritional habits to become part of your children's eating patterns—behavior that will carry with them throughout their lifetime and can affect generations to come.

Parenting in Pregnancy

...begin at the beginning

PROGRESSIVE RELAXATION

The stress of labor mirrors the stress of beginning parenting. The unknown fears of both can be felt in the body as well as the mind. Relaxation techniques used in labor can be effective for relieving the tension and stress experienced by most new parents.

PURPOSE:

To introduce the concept of relaxation as a tool for lifelong comfort.

GOAL:

To teach parents specific relaxation techniques as a means of connecting with their infant.

DISCUSSION:

Breathing for relaxation—

By changing the automatic process of breathing into a conscious effort, it is possible to take the focus of your mind away from the pain or stress you are experiencing, thus resulting in relaxation and stress relief.

Breath 1: Allow your mind to direct the oxygen to the top of your head as you inhale, then release the tension in your forehead, cheeks and jaw as you exhale.
Just like your infant will do with those first reassuring breaths at birth.

Breath 2: Repeat, but this time release not only the forehead, cheeks and jaw, but the shoulders and arms as well. Allow the tension to run out your fingertips and "let go" of the stress.
Just like new parents need to "let go" and realize that the stress they feel with their infant will not last forever.

Breath 3: Repeat, but this time move the visualization further down the body into the torso, the legs, and eventually out the bottom of the feet.

As parents learn to "take in" what they need, and "let go" of what they don't need, they have discovered a valuable method for meeting needs and reducing stress, both in labor and as a technique for coping with their child's needs for comfort.

The parents who teach their children this valuable relaxation technique will be giving their children the gift of knowing how to comfort themselves. These are the children who will feel less pain—giving parents the ultimate pleasure of sharing the ability to ease some of the pain their children will experience as they go through life.

FIRST CLASS DELIVERY
Prenatal Testing and Labor
Class II

OBJECTIVES:

1. Identify 3 parenting skills used in caring for a baby.

2. Describe three prenatal tests and explain the purpose for each test.

3. Explain the purpose of fetal monitoring during labor and ways to cope while fetal monitoring is in progress.

4. Describe signs that a woman's body may show to indicate that labor may start soon.

5. Explain what the "rupture of membranes" is, and why it is important to contact the doctor/nurse midwife immediately if a woman thinks this has occurred.

6. Identify the four stages of labor.

7. Define the terms "dilation" and "effacement".

8. Demonstrate at least three body positions that can enhance a woman's labor progress.

9. Demonstrate basic breathing techniques for labor.

10. Explain how to time labor contractions.

CLASS OVERVIEW:
-Parenting skills
-Medical tests during pregnancy.
-Fetal monitoring during labor.
-Informed consent.
-The Process of Labor and Birth.
-How to Time Contractions.
-Comfort measures for labor.
-Continue breathing techniques

H. Nonstress Test (NST):
The mother is hooked up to an electronic fetal monitor. (We will talk about this machine in a couple of minutes). The fetal monitor records the baby's heart rate onto a graph. The response of the fetal heart to fetal movements is observed. A healthy fetus with plenty of oxygen in its system will have a heart rate in the normal range (120 to 160 beats per minute). Also, a healthy fetus will move intermittently, and usually the heart rate will rise when he/she moves. If this does not happen it may mean that the fetus is not getting enough oxygen.

I. The Contraction Stress Test or Oxytocin Challenge Test (OCT):
This is a more complicated test than the Nonstress Test. The mother is hooked up to a fetal monitor while she is having contractions. Contractions may be stimulated by giving the mother the hormone oxytocin through an IV (intravenous administration), or by stimulating the mother's nipples! (Self stimulation or hot towels). The heart rate is then observed to see how the fetus withstands the stress of contractions. The doctor is trying to determine if the baby is healthy enough to handle the labor process. (Used at times when mother has diabetes, pre-eclampsia, or with post maturity). This test can actually cause a mother to go into labor, so she should take her suitcase to the hospital and leave it in the car, in case she has to stay!

J. Amniocentesis:
This is the name of the procedure in which a thin needle is inserted into the uterus to withdraw a small amount of amniotic fluid. The fluid is withdrawn by a syringe (within 24 hours this small amount of fluid will be replenished) and sent to a laboratory to be analyzed, usually for the presence of chromosomal abnormalities. During the last trimester, amniocentesis may be done to assess the maturity of the fetal lungs.

There is a small risk of miscarriage, infection, and injury to the fetus that is possible when amniocentesis is done. A woman should discuss the risks vs. the benefits with her doctor.

IV. ELECTRONIC FETAL MONITORING:

**See Parenting in Pregnancy - "Kick Counting"*

Electronic fetal monitoring is currently done routinely in all hospitals in our area during all obstetrical patients labors, so it is important that you know what it is and why it is being done. You may be monitored continuously throughout your labor while you are in the hospital, or the monitor can be used intermittently (taken off and on).

A. What Does An Electronic Fetal Monitor Do?

An electronic fetal monitor (EFM) is used to measure and record the baby's heartbeat and the strength and duration of uterine contractions during labor. This information gives your doctor and nurses the ability to assess how your baby is responding to the stress of labor.

What is considered a "normal" fetal heart rate? (Anywhere between 120 to 160 beats per minute)

B. What Does An Electronic Fetal Monitor Look Like?

Refer to posters and picture in pamphlet - "Fetal Monitoring and the Birth of Your Baby"

There are two kinds of EFM:

1. External Monitor:

In this type of monitoring, used most frequently, two devices on belts are strapped to the mother's abdomen. One is the ultrasound transducer, which uses ultrasound waves to pick up the fetal heartbeat. The other device is a pressure-sensitive gauge that is placed over the uterus and measures the intensity (strength) and duration (length) of uterine contractions. Both of these devices are connected to a monitor beside the bed, which displays and prints out readings on graph paper.

This monitor is "non-evasive". It can be removed so that the laboring woman can walk and move about. (Being able to change positions, take a walk, take a shower or get in a whirlpool helps many women to handle the pain of labor much better).

2. Internal Monitor:
When more accurate results are required (such as when fetal distress is suspected), an internal monitor may be used. The baby's heart rate is recorded using a special spiral electrode which is attached to the baby's scalp during a vaginal examination. The amniotic sac (bag of waters) must already be broken (the doctor can do this with a special "hook"!) and the cervix must be dilated to at least 1 or 2 cm. The uterine contractions can be measured either with the pressure gauge strapped to the mother's abdomen or with a fluid-filled catheter (tube) inserted into the uterus.

-This is an invasive procedure (enters the body) so there is more risk, mostly of infection to baby (where the electrode enters the scalp) or mother.

- Unknown amount of pain caused to baby as electrode is clipped on.

- This monitor cannot be periodically disconnected and reconnected and so can limit the woman's mobility, especially because she is usually confined to bed. Limitations in mobility can affect how a woman copes with the pain of labor, she should try to lie on her sides (especially the left side) as much as possible. Avoid lying flat on your back!

- The internal monitor is very accurate and can accurately help to assess the baby's condition during labor.

C. Coping With Fetal Monitoring

1. Discuss the use of EFM with your doctor/nurse midwife prior to labor.
2. If all is normal, ask that the (external) monitor be removed so that you can move about. Would it be OK if you are monitored intermittently?
3. Do not lie flat on your back while being monitored, unless absolutely necessary. (We will talk more about positions during labor later this evening).

V. INFORMED CONSENT

Informed consent is the process by which people receiving health care make decisions about their care. Before any test, procedure or treatment is done, ask your health care provider:

*What information will the test provide?
*How reliable are the results of the test?
*What are the benefits of the test or treatment?
*What are the risks of the test or treatment for me and my baby?
*What are possible alternatives to the test/treatment proposed and their risks and benefits?
*Are the test results important in determining my care?
*What would happen if I did not have the test/treatment?
*How much does the test/treatment cost?

Obviously, there may be emergency situations where you will be unable to make decisions, but in most cases, you should be able to do so. Learn during pregnancy about your alternatives in procedures, treatment, or drugs in labor. Then you will have time to decide what is best for you.

Students help list appropriate questions to ask care giver about a test or procedure

BREAK

QUESTIONS	CONTENT	ACTIVITIES
	VI. THE PROCESS OF LABOR AND BIRTH:	Video "Labor and Delivery for Teens" Luvjoy
	A. (From last week) What is Labor? It is the hard work which the mother (and baby) do in order to bring the baby into the world.	
	B. What Are Some Signs That A Woman's Body May Show That Indicate Labor May Be Starting Soon? **See Parenting in Pregnancy . . . How Do Parents Know . . .*	
	1. LIGHTENING AND ENGAGEMENT (also called "dropping") The baby descends into the pelvic cavity usually head down (95% of them do!). The head is now nestled within the pelvic opening instead of above it. This often happens sooner for first-time mothers (2 to 4 weeks before delivery). The woman may notice that her belly seems to be lower and tilted farther forward. It becomes easier to breathe and because there is less pressure on her stomach, there is less heartburn. But she may also have more pressure on her bladder and so she needs to urinate more often. Your medical provider can estimate how far the presenting part (usually the head) has progressed through the pelvis and measures this in "stations" (each a centimeter long). -A "fully engaged" baby is said to be at zero "0" station. The head has descended to the level of the ischial spines (bony landmarks on each side of the mid pelvis).	Use baby and pelvis model to demonstrate concepts

-During delivery, the head continues through the pelvis past "0" to _+1, +2, and on to +5, which is when the head is seen at the vaginal opening right before birth.

2. INCREASE IN BRAXTON-HICKS CONTRACTIONS "Practice" contractions!
3. A SUDDEN BURST OF ENERGY- The "nesting" instinct. Be sure to rest and conserve this energy. It is for labor!
4. AN UPSET STOMACH OR DIARRHEA.
5. RUPTURE OF MEMBRANES ("Bag of waters breaks") - A gush or dribble of fluid from your vagina. This usually happens during labor, but it can happen before you go into labor. Contact your doctor/nurse midwife immediately! Note the color of the fluid (is it clear, greenish, or brownish?) And tell the doctor. You will probably be instructed to go to the hospital to make sure the membranes have ruptured (it can be hard to tell) and to be assessed. You can wear a maxi pad for your trip to the hospital.

C. The Stages of Labor:
**See Parenting in Pregnancy-Stages & Phases of Labor*
There are four stages of labor

Use model:
Cervical Effacement and Dilatation along with childbirth graphics - flip chart to demonstrate concepts

1. First Stage of Labor - This is the period from the beginning of labor until your cervix is dilated to 10 centimeters and completely effaced.

What is dilation? (also called Dilatation)
It is the opening of the cervix resulting from the contraction of your uterus during labor. Measured in centimeters, it begins at "closed" and progresses from 1 to 10 centimeters. At 10 centimeters, the cervix has

opened completely so your baby can move down into the vagina (birth canal).

What is Effacement?
This is the thinning out of the cervix due to uterine contractions. The cervix begins at about one inch thick. When it thins out about halfway, this is measured as 50% and continues to progress to 100% effaced (very thin). Effacement and dilation occur together.

Give each person a life-saver to suck on - to illustrate Dilation and Effacement.

Periodically check melting life saver and discuss effacement concept.

-During the 1st stage of labor the cervix becomes 100% effaced and dilates to 10 cm.

-The 1st stage of labor is the longest stage. (Other than the recovery - stage 4)

-The 1st stage of labor is divided into "substages":

1. Early labor: 0-4 cm dilated
2. Active labor: 4-8 cm dilated
3. Transition - the hardest stage but the shortest! 8-10 cm dilated

Use:
Childbirth Education Series Flip Chart and handouts from the series along with cloth doll with knit uterus to demonstrate stages of labor.

2. The Second Stage of Labor:
From the time the mother's cervix is fully (100%) effaced and 10 cm dilated to the birth of the baby! This is the "pushing" stage. The mother's uterus pushes the baby through the vagina and out into the world. This is hard work and can last anywhere from 15 minutes to 30 hours.
3. The Third Stage of Labor:
Expulsion of the placenta. It usually occurs within 30 minutes after the baby's birth. There are contractions but they are much less strong than when the baby is born.

4. The Fourth Stage of Labor:
Recovery and involution of the uterus.

Involution - The return of the uterus to normal size after the baby is born. This can take several weeks. At 4 to 6 weeks postpartum (after birth) you return to your doctor for a checkup to make sure your body is healing properly.

VII. ROLE OF LABOR PARTNER

How many of you are planning to have a labor partner (coach) with you?

what are you hoping your partner will do for you?

Partners: What are you most concerned about in your role as a labor partner/ coach?

Labor Partners (Coaches):
Your role is very important! Your presence can help to encourage and give a sense of security to the laboring woman. You can also act as an advocate for her to the hospital staff. You may be nervous about your role, but remember that simply being there for her is so important, and that you won't be alone. The nursing and medical staff will be there, too.

What can the Labor Partner do?

1. Support and encourage the laboring woman.
DO NOT CRITICIZE HER!
2. In early labor, stay calm and help the woman adjust to and get in control of her contractions before going to the hospital. Most doctors recommend leaving for the hospital when contractions are about 5 minutes apart. Usually much of early labor is spent at home. You and your partner need to talk with the doctor/nurse midwife to find out when he/she wants you to leave for the hospital. (Distance from home to hospital is also a factor).
3. Maintain eye contact and touch with the laboring woman as long as she wants this. (Some women do not want to be touched during certain times in labor).

Give students card to write their concerns in pregnancy, stressors they may have. (no names given).

Discuss questions presented

How many have a supportive FOB?

How many do not?

4. TIME CONTRACTIONS WITH HER!
This is very important for both of you to know how to do. The doctor/nurse midwife and the hospital staff will want to know:

a. The FREQUENCY of the contractions: The interval between the beginning of one contraction to the beginning of the next.
b. The DURATION of the contractions: How long the contraction lasts.
c. The INTENSITY of the contractions: Measures how hard the contractions are.
-Mild: The fundus (top of uterus) feels like the tip of the nose
-Moderate: Fingers indent fundus slightly
-Strong: (or hard) Fingers cannot indent fundus during a contraction.

Give "time" examples to illustrate timing the frequency and duration of contractions.

YOU NEED A WATCH OR CLOCK WITH A SECOND HAND!

TIME CONTRACTIONS FROM THE BEGINNING OF ONE TO THE BEGINNING OF THE NEXT!

Choose a couple to actually time contraction and document their findings

It may be helpful for the partner to write down exactly when (to the second) the contractions start and when they end, and keep a chart.

-Place fingertips gently on the fundus.
- As a contraction begins, pressure (tension) will be felt under the fingertips.
-The intensity felt will increase, reaching a peak in hardness at the acme of the contraction, and will slowly diminish.
-Contractions should begin in the fundus. If they begin elsewhere, tell your doctor.

QUESTIONS	CONTENT	ACTIVITIES
	5. Offer the laboring woman sips of fluids or ice chips. 6. Breathing techniques used can leave her lips dry. Give her lip balm/vaseline for her lips. 7. Give her a lollipop or light food if allowed. 8. Massage her shoulders, back, hands, or feet if she finds this relaxing. 9. Do a light abdominal massage, also called Effleurage. This rhythmic light stroking over the woman's abdomen can be done over clothing or directly on the bare skin. Soft circular strokes using the fingertips, or a back-and forth "smile" stroke along the lower abdomen can be relaxing to some women. 10. Wipe her face for her with a cool cloth; brush her hair. 11. Apply counter pressure to the sacrum (lower back) during contractions. The partner uses his/her hands to apply pressure to the lower back during the contractions. This is one of the most effective techniques for back pain. 12. Encourage her to change her position often. She should avoid lying flat on her back. 13. Remind her to urinate often (every hour). 14. Practice at home with her the breathing and relaxation techniques so that you know them and can breathe with her when she uses these techniques in labor. 15. Be her advocate with the medical and nursing staff. Let them know what she needs or wants and ask questions if you need to. **Insert Pareting in Pregnancy - Wanted Dependable Coach*	Ask students what their labor coach may do to make them more comfortable - give time for discussion Demonstrate Effleurage Demonstrate applying counter pressure.

QUESTIONS	CONTENT	ACTIVITIES

VIII. COMFORT MEASURES FOR LABOR AND DELIVERY:

Can anyone explain what the Pain-Fear-Tension Cycle is?

Why is being able to relax during labor so important?

A. Review from last week: Fear-tension-Pain Cycle
**See handout: Parenting in Pregnancy - "Fear - Tension - Pain Cycle"*

When we are tense and afraid, we feel more pain. The key to a more comfortable labor is to learn to relax. Your body will do its best work and you will probably deliver your baby more easily when you are relaxed.

You want to let labor happen and not fight the process. This conserves your energy for the time when you need to push the baby out.

B. Positions For Labor:
If you want to have your baby more quickly and with less pain, plan to get up, keep moving, and change your position through out labor, or as long as possible!

How does walking help your labor along?
-Contractions become stronger, more regular, and more frequent when you stand up.
-Gravity helps your baby make its way through the pelvis.

Changing Positions During Labor:
Most women cannot spend their entire labor walking around. Especially with a long labor, you can alternate walking with resting.

As long as your labor is progressing normally, you can try some of these positions:

Demonstrate. If space permits, have participants try different rocking positions and the "Pelvic Rock".

1. Stand, leaning against a counter, bed, or your partner.

2. Kneel on all fours or with your arms and head against some pillows on a bed or chair. In the all fours position you can try the "Pelvic Rock" (Pelvic tilt).
   Pelvic Rock: Kneel on all fours. While inhaling, tighten muscles of abdomen and buttocks, arching back like a "mad cat". Count- 1,2,3,4. Relax, exhale- 1,2,3,4.
3. Squat on the floor or bed. You can lean against your partner. (Practice squatting now while your are pregnant to build up your endurance).
4. Sit upright in bed or straddle a chair, leaning on a pillow on the back of the chair.
5. Rock in a rocking chair.

Use what works for you during labor. There is no "right" way.

You may be told that you must stay in bed because of bleeding, fetal distress, and premature rupture of membranes. You will have to stay in bed if you have epidural anesthesia.

If you must stay in bed during labor, remember that lying on your back is the WORST position to labor in. The weight of the uterus compresses major blood vessels (the descending aorta and inferior vena cava) that supply and drain the lower part of the body. This interferes with your blood circulation to the uterus and placenta and can cause your baby's heart rate to drop. Your labor can also be longer.

SIDE-LYING, especially on your left side in bed makes contractions more efficient and enhances blood circulation to your uterus.

If you are instructed to lie on your back, make sure that your head is elevated with pillows and have a pillow or a rolled up blanket under one hip to tilt your uterus off of your backbone.

QUESTIONS	CONTENT	ACTIVITIES

Talk to your health care provider before you go into labor about how he/she feels about changing positions during labor.

Pillows - It is good to bring some extras from home (in colorful pillowcases to avoid getting them mixed up with the hospital pillows) in case there is a "pillow shortage" at the hospital. Pillows help to support your body and allow you comfort in many different positions.

C. Breathing Techniques:
Breathing and relaxation work together. When you are relaxed, your breathing tends to become calm and regular. When you are tense, deliberately slowing down your breathing can enable you to become more relaxed and prevent a stress response that makes labor harder.

Focusing on your breathing can not only relax you but takes away some of your ability to focus on pain. The healthy dose of oxygen you get is good for you and your baby.

Focal Point: Many women find it helpful to keep their eyes opened and focused on an object, picture, or a person while they are breathing during a contraction. The focal point can be anything you want - a ribbon, a picture of a favorite pet or place, your partner, something in the room.

Have class members bring in an object to use as a focal point for this class or next week's class.

**See Parenting in Pregnancy - "Staying Focused"*

Does anyone remember what can be done at the beginning and end of each contraction?

1. "Cleansing Breath" or "Relaxing Breath"
   Take a slow, deep breath at the beginning and the end of each contraction.
   -Inhale slowly and deeply through your nose (or mouth, if you have a stuffy nose).
   -Exhale slowly through your mouth.

QUESTIONS	CONTENT	ACTIVITIES
	2. Slow Paced Breathing: Use this type of breathing to help you achieve and maintain relaxation. Breathe slowly, at about 6 to 10 breaths per minute. (Abdominal breathing) - Inhale deeply and slowly. Breathing in through your nose helps to keep your mouth from getting to dry, but if your nose is stuffy, breathe in through your mouth. Your lower back will move as you inhale. Exhale slowly. some women like to make a sighing sound as the breathe out.	Have participants practice these methods. If space allows, have them do so while in different positions for labor.
	3. Hee Hee Hee Who -Cleansing breath before begin -Blow out (exhale) on who -Don't inhale on hee's may hyperventilate -Inhale and exhale evenly	Have "practice contractions" - Instructor states "contraction begins" - participants breathe until instructor states "contraction ends".
	*If your mouth is dry, touch the tip of your tongue lightly to the roof of your mouth just behind your teeth. Keep your tongue there as you breathe during the contractions.	
	*If you feel dizzy or lightheaded, slow your breathing rate. You may be hyperventilating. If you hyperventilate in labor, slow your breathing and place a paper bag over your nose and mouth as you breathe slowly.	
	Always begin and end each contraction with a slow, deep cleansing breath!	

PRENATAL PARENTING SCALE Answer Sheet

Please answer the following questions, circling a 'T' for true and 'F' for false.

1. After my baby is born I will need support. (T) F
2. If the coach is the only support, that will be enough. T (F)
3. There will be changes in my life after the child is born that I cannot anticipate. (T) F
4. There are coping techniques that I can learn in the prenatal period that will help me after the baby is born. (T) F
5. The stages and phases of labor and delivery are different for every woman. (T) F
6. There are stages and phases that my child will go through after birth that I must be able to identify in order to be an effective parent. (T) F
7. My child must separate from me in order to grow and develop. (T) F
8. The first separation from my child at birth is just as necessary as the separation from the infant at around three months. (T) F
9. The pregnancy and labor process is painful for both parents and infants, but it is pain with a purpose. (T) F
10. There are things I can do to learn about and recognize the "cues" my baby gives to me about what he/she wants. (T) F
11. If my baby gives me the "cue" of crying during the first six months and I pick him/her up, I am taking the risk of spoiling the child. T (F)
12. If my child needs to be comforted during the first few months of life, the only appropriate way is through my own individual efforts. T (F)
13. Not every child needs to have an object (other than a person) to comfort him/herself. T (F)

14. It is important for every child to grow from being dependent to being independent and eventually interdependent. T F

15. I should begin disciplining my baby from the time of birth. T F

16. My baby will be born with a certain personality and there is nothing I can do to change that. T F

17. After my baby is born, my sex life with my partner will remain basically the same as it was before the pregnancy. T F

18. After the baby is born it is normal to be depressed. T F

19. I will know on my own how to recognize whether I need help in coping with my new baby. T F

20. Continuing education will be needed in order to become an effective parent. T F

Parenting in Pregnancy

...begin at the beginning

"KICK COUNTING"

Effleurage for Bonding

Begin at the beginning by communicating with your baby through touch—the most effective tool parents have to bond with their infant.

PURPOSE:

To stress the importance and power of touch as a vehicle for unborn and newborn speech. To help parents feel less anxious about counting kicks by explaining benefits beyond measuring the number of kicks.

GOAL:

To teach parents the effleurage (finger massage) technique for communicating with their unborn baby. This "hands-on bonding" is the perfect practice ground for non-verbal communication.

DISCUSSION:

The "how-to" of effleurage—

- to communicate and identify "cues" from your baby
- to check on the health of your baby through "kick counting"

1) Choose one hour each day to "attach" to your baby through touch
2) Quietly listen to what your baby is saying through the touch-kicks. Their movement is a "cue" for you to pay attention!
3) As you count the number of kicks, become aware of your baby's rhythms. Help your baby to identify your touch and begin a reciprocal relationship with your unborn baby. Your baby will remember this and return the favor or reciprocal responses at three months postpartum.
4) Touch-identification can also be practice for the touch relaxation coping techniques needed during labor.

THE IMPORTANCE OF TOUCH

In pregnancy:	touch can indicate the health of your baby
In labor:	touch can be used between contractions for relaxation
Postpartum:	touch can release tension in your newborn and reattach parent and child

Parenting in Pregnancy

...begin at the beginning

HOW DO PARENTS KNOW...

when labor begins? ***when parenting begins?***

Parents are taught how to identify signs of labor and when to use the skills learned in Childbirth Education, yet no one teaches parents how to identify the appropriate time to begin to use parenting skills.

PURPOSE:
To parallel the ability to identify possible signs of labor with the ability to identify how and when to parent. Each requires learning to succeed!

GOAL:
To give parents an understanding of the difference between true/false labor and true/false parenting. As parents long to know how the process of labor begins, the process of identifying and preparing for parenting can happen at the same time.

DISCUSSION:

Ask parents—

- What signs will you look for that signal the beginning of labor?
- What signs will you look for that signal the beginning of parenting?

Signs of Labor:	Signs of Parenting:
Water, water everywhere - when mom's water breaks	Wet diapers everywhere
Coming to the realization that the contractions won't stop, no matter what position mom's in	Coming to the realization that babies require non-stop caretaking, no matter how tired parents get
Mom's emotional state changes in order to respond to labor	Parents' emotions change in order to respond to baby's needs
There is a "rush" or urgency that take care of business/get things done (nesting instinct)	Reorganization of life to adjust to this "lifetime" guest
Weight-loss	Loss of physical attachment to baby
Flu-like symptoms	Tired and achy all over from sleepless nights

Once the signs of labor and parenting are recognized, the odds of responding appropriately are increased tremendously and the confidence level goes up for parents.

Parenting in Pregnancy

...begin at the beginning

STAGES AND PHASES OF LABOR

Contractions and children are both like waves. They always come, they continue to build and grow and as they fade away or separate from a mother, they leave a lifelong impression.

PURPOSE:

To parallel the stages of labor with the stages and phases of child development.

GOAL:

To teach parents to recognize the characteristics of each phase and stage in order to reduce stress and see labor and delivery as a training ground for parenting education.

DISCUSSION:

LABOR, STAGE ONE

The first stage of labor has three phases or parts just like the first year of baby's life.

Phase One: Early labor—parallels immediate postpartum Both are filled with anticipation and the need to rest. The coach's role is to take care of mom and provide support.

Phase Two: Active labor—parallels the first few weeks postpartum The mom experiences profound fatigue and physical pain from labor and the new 24 hour a day job of taking care of the newborn.

Phase Three: Transition *(the toughest part of labor)* parallels first three months postpartum A time of movement or change from one place to another. It is a time marked by confusion and is when the pressure really begins. Mom may get discouraged with her progress, just like parents get discouraged waiting for their child to respond.

LABOR, STAGE TWO (THE SHIFT)

Parallels postpartum by the third month.

Mom's contractions are now further apart, seemingly easier, allowing her to work with her pain; in postpartum, baby is sleeping better, responding to parents, making fussy times easier to handle.

LABOR, STAGE THREE

*Separation of the placenta, your child's "physical guardian angel".**

This stage seems insignificant since the focus is on the newborn... just like those stages in your child's life that seem to pass without consequences and/or conflict. As parents automatically focus on their newborn, parental prioritizing begins to ensure their child's health and safety needs.

LABOR, STAGE FOUR

Parallels the first year.

This stage mirrors all the subsequent stages of development your child will go through in his/her lifetime.

COPING TECHNIQUES:

Each stage of labor is as unique as the stages of child development. If parents recognize these stages, they are prepared to choose techniques to cope.

Ask: *What stage or trimester of your pregnancy did you have the most trouble dealing with? How did you cope?* Instructor parallels parental responses with this learned technique that can be transferred to postpartum.

Examples of coping techniques: The nausea often encountered in the first trimester requires problem solving for the physical ailments in pregnancy. This is the training ground for coping with potential child illness.

*As described by Balinese mothers in the Journal of Perinatal Education, Vol. 6, No. 1, '97.

Parenting in Pregnancy

...begin at the beginning

HELP WANTED: DEPENDABLE COACH

Just as a coach's role must be clearly defined for success in labor, so must that role be defined for successful postpartum parenting. Techniques such as communication, touch, reassurance, assistance, and love are the coach's keys to success.

PURPOSE:
To identify the role of the coach in labor and parallel it with the postpartum coaching required in parenting.

GOAL:
To teach coaches how to transfer the skills used in their supportive role during labor to develop a concise plan for supporting each other in their new role as parents.

DISCUSSION:
Identification of the roles of the dependable coach.

ROLE IN LABOR *Watch and observe mom to assess her needs...*	ROLE IN PARENTING *Listen to what mom needs...*
COMMUNICATE by offering positive feedback on how she is progressing in labor.	COMMUNICATE by talking about how she is coping with the new baby and reinforce her efforts for success.
TOUCH either physically or mentally, and recognize what type of touch she needs for comfort and control.	TOUCH to soothe stressors. Recognize what type of touch is needed for comfort, intimacy, or just reassurance.
ASSIST by offering alternatives when she is discouraged by her progress and help her get into a relaxing position to relieve the pain.	ASSIST by helping with the transition to this new job of parenting. Remind her of relaxation techniques learned in prenatal classes.
LOVE provides reassurance and support, providing mom with greater confidence and feelings of accomplishment.	LOVE and respect each other's newly developing parenting styles, recognizing that each of you must define your own role as parent.

Just as a mom has the distinctive role of delivering her baby, the coach has a distinctive role of supporting that delivery. In postpartum, mom continues to depend upon the supportive role of the coach. This role can be modified and switched, depending upon the needs of the family.

Parenting in Pregnancy

...begin at the beginning

THE "FEAR-TENSION-PAIN" CYCLE

Just as a mother requires knowledge about the changes her body is experiencing in preparation for birth, parents require knowledge about the changes their lives will take with the addition of a child.

PURPOSE:

To discuss each parent's perception of pain and understand it as a necessary tool for survival.

GOAL:

To help parents recognize their current style of dealing with fears associated with pain, then teach them how to substitute their ***Fear-Tension-Pain Cycle*** with an ***Education-Relaxation-Distraction Cycle*** in labor and postpartum parenting.

DISCUSSION:

A cycle is a wheel of continuous motion. The wheel, if left alone, will run until it hits a bump. Bumps are painful and whoever experiences the bump must then decide how to cope with the consequences.

Fear-Tension-Pain is one of the "Cycles of Life." In the process of childbirth and parenting, it must be replaced by:

EDUCATION

- of the labor process in order to ease fear of the unknown
- of infant development to help parents understand why children behave the way they do

RELAXATION

- to allow parents to release tension in labor and ease the perception of pain
- to give parents patience to deal with the stress of a newborn

DISTRACTION

- to give parents the tools to change behaviors when faced with pain
- to give parents the tools to change their child's behavior when inappropriate

The lifelong process of parenting demands continuing education. Parents must recognize what needs to change and deliberately train themselves to do the job of parenting better than the previous generation.

Parenting in Pregnancy

...begin at the beginning

STAYING IN FOCUS

Focal Points and Cleansing Breaths

Focusing in labor—as in parenting—takes practice, because there are numerous distractions in labor, just as in life.

PURPOSE:

To demonstrate the need for focus in both labor and postpartum parenting.

GOAL:

To practice the labor skills of focusing and communication through signals (i.e. cleansing breaths) in order to help parents feel "in control" for the demands of parenting.

DISCUSSION:

Focal Points—

Focusing allows goals to be accomplished through planning.

In Labor:

When a mom focuses in labor, her perception of pain is less. The focal point helps mom get a sense of control.

In Parenting:

When a parent focuses on parenting, the job becomes easier. It allows for more control in the family, resulting in greater confidence.

Cleansing Breaths—

Each cleansing breath signals the onset of a contraction.

In Labor:

The cleansing breath is used as a signal. it is important for her partner to recognize this signal and respond accordingly. Each breath gives oxygen to working muscles for strength.

In Parenting:

Each deliberate breath in postpartum allows parents to get control before acting, giving them time to draw strength to cope.

Facilitated Discussion—

As each parent brings an external focus to class, ask, "How did you choose your focal point? Why is it significant to you?"

Children who learn to focus from their parents feel more secure. They know when to stop and when to go, eliminating confusion and allowing them to eventually rely on themselves for comfort and security.

FIRST CLASS DELIVERY
The Labor and Delivery Experience
Class III

OBJECTIVES

1. Explain some of the physical signs and symptoms a woman can use to tell the difference between "true" and "false" labor.

2. Describe routine hospital admission procedures.

3. Explain what the following medical procedures are: amniotomy, artificial induction of labor, episiotomy, forceps delivery, and vacuum extraction delivery.

4. Describe pain medication options for use during labor and delivery.

5. Summarize the benefits and risks of using epidural anesthesia during labor.

6. Explain possible indications for the performance of a Caesarean Section.

7. Describe changes and discomforts common during the postpartum period and how to cope with these changes.

8. Demonstrate breathing techniques for labor and delivery.

9. Identify three things seen on tour.

10. List three items you would pack for the hospital.

CLASS OVERVIEW: (class held at Zeeland or Holland Community Hospital)

-Is this labor?
-Going to the hospital
-Medical procedures that may be done during labor and delivery
-Medications for pain relief during labor and delivery
-The Second Stage of Labor - The birth of your baby
-Caesarean Childbirth
-Tour of Birthing Unit

Any questions from last week?

I. INTRODUCTION

Tonight we are going to complete our discussion about labor and delivery. We will talk about how you can (hopefully) tell if you are really in labor, going to the hospital, common hospital routines and procedures, and medications that may be used for pain relief in childbirth. We will discuss caesarean childbirth - why this may be necessary and what to expect if it is. Finally, we will talk about the "postpartum" period - recovering from childbirth.

II. IS THIS LABOR?

A. It can be hard sometimes to determine if you are really in labor. Your body can send "mixed messages". You may have heard of "false labor". Your body can act as if it is in labor, only to stop later. There is a lot of variation among women in the way labor starts. (Remember - every woman's labor is a unique experience!) If you are feeling confused or concerned, you should not hesitate to call your doctor/nurse midwife and clarify what is going on. When you call your caregiver (doctor/APN) he or she will want to know:

-How far apart are your contractions?
-How long does each one last?
-How strong do the contractions seem to you?
-How long have you been having contractions?
-Do you thing the "bag of waters" (amniotic membranes) has broken?
-Have you had any "bloody show", loose bowel movements, or other signs of labor?
-When was the last time you ate?

Some ways you can tell the difference between "true" and "false" labor are:

TRUE LABOR
*Contractions may be irregular at first, but become more regular and get stronger, longer, and closer together.
*Walking makes them stronger
*Lying down does not make them go away
*Usually felt beginning in the back, moving around to the front, and low down in the abdomen
*Cervix thins and opens (Doctor/APN checks this!)

FALSE LABOR
*Contractions are usually irregular and short.
*Contractions do not get stronger or closer together.
*Walking does not make them stronger.
*Lying down may make them go away.
*Usually felt mainly in the front and up high.
*No changes in the cervix (Doctor/APN checks this)

When should you call your doctor/APN?

Have you talked to your doctor/APN about when you should go to the hospital?

B. Call your doctor/APN when any one, or a combination of the following occur:
1. Rupture of the membranes (small leak or a gush of fluid from the vagina).
2. Regular or irregular contractions (felt as menstrual-like cramps, backache, gas, pelvic pressure).
3. "Bloody" show (blood streaked vaginal mucus discharge - Mucous Plug).
4. Contractions longer, stronger, and more frequent.
5. Backache, diarrhea.

The doctor/APN will tell you when he/she wants you to go to the hospital.

QUESTIONS	CONTENT	ACTIVITIES
Where do you keep the telephone number of your medical care giver? How might you feel at this time? What might bring you to the hospital?	C. Feelings at this time: 1. Anticipation 2. Excitement 3. Relief 4. Apprehension 5. Disbelief 6. My labor does not "fit the book"! D. Labor can be made easier by: 1. Knowing what is happening, and what is going to happen. 2. Sharing the experience with your labor partner and any support persons you choose. 3. Having your questions answered before you go to the hospital. 4. RELAXING! Use relaxation techniques! 5. Being prepared - have your bag packed ahead of time, know which entrance to the hospital to go in, etc. E. When labor begins: 1. Talk to your doctor/APN about whether it is okay to eat light snacks and drink clear liquids (broth, fruit juice, Jell-O popsicles). Don't eat a heavy or fatty meal if you think you are in labor, as it can be hard to digest. Usually doctors encourage eating lightly (crackers, toast, applesauce, for example) and drinking "clear liquids" (fruit juice, ginger ale, Jell-O, popsicles, water) during early labor to help keep your strength up. 2. No tub bath once membranes rupture. 3. Relax and try to rest. Watch TV, listen to music - what ever helps you to relax. 4. Time contractions. 5. Remember to urinate frequently.	

QUESTIONS	CONTENT	ACTIVITIES
	6. Start to use your breathing techniques only when contractions become too strong to talk through. 7. Many women find that showers or a tub bath (if membranes have not ruptured) are very soothing and help them during labor. Make sure you have help getting in and out of the shower/tub.	Review how to time contractions (from last week)
	Most of early labor is often spent at home! Relax as much as possible and conserve your energy. The doctor/nurse midwife will tell you when he/she wants you to go to the hospital.	
	III. AT THE HOSPITAL	
Have you asked where in the hospital you should go when you arrive in labor?	A. Mothers are usually brought to the labor and delivery area via a wheelchair. You will probably be brought to a "triage" room where you will be examined to determine if you are really in labor and need to be admitted.	
	B. Routing admission procedures include: 1. Health history - identifying information, due date, early labor signs, allergies, when your contractions started, how far apart they are, whether your membranes have ruptured, when did you eat last. 2. Hospital gown 3. The nurse will request a urine sample. She will check your pulse, blood pressure, temperature. 4. Your baby's heart rate will be checked. An ultrasound may be done. You will have a vaginal/cervical exam to see if your cervix is dilating and effacing. 5. Sometimes an IV may be started. (Intravenous fluids) This will give you fluids and is also a way to give medications. If you have epidural anesthesia, you must have an IV. (Epidurals can lower blood pressure and IV fluid helps to maintain your blood pressure.) Some	

times women are given a "heparin lock" instead of an IV to keep your vein open. Easier to move about with out entire IV apparatus.

6. Occasionally a woman may be given an enema to cleanse the lower bowel. (This is not done very often, though).

C. Procedures that may be done after you are admitted to the hospital:

1. Amniotomy:
This is when the doctor breaks your "bag of waters" (ruptures the amniotic sac) artificially using an instrument that looks like a long plastic crochet hook. It is a very simple procedure done during a vaginal exam with the "aminohook", which scratches the surface of the membranes. It is a painless procedure. It is often done to speed up labor (contractions often become stronger and more frequent). It will also often be done if fetal distress is suspected. Rupturing the membranes will allow the doctor/nurse midwife to place an internal electronic fetal monitor on the baby's head to record the FHR more accurately. It also allows him/her to see if there is any meconium in the amniotic fluid. Meconium is a sticky green substance that is the baby's first bowel movement.

The baby will pass meconium into the amniotic fluid in response to stress (such as oxygen deprivation). If there is meconium, it could mean that the baby is being stressed by the labor process to a dangerous degree. The meconium can cause pneumonia if it gets into the baby's lungs, so the baby is suctioned thoroughly at birth to prevent this.

Critics of amniotomy believe that the fluid in the amniotic sac helps cushion the baby's head during labor. The umbilical cord may prolapse and be com pressed if amniotomy is done when the baby's head is high. Also, once your bag of waters is broken, delivery must take place within 24 hours, in order to prevent infection. (This is usual medial practice). Therefore, amniotomy may make the use of Pitocin necessary.

2. Pitocin - (Artificial induction of labor):
Labor usually begins around your due date. At that time your body (pituitary gland) releases oxytocin, a hormone that causes uterine contractions. Sometimes it is necessary to give this natural process a push, either to begin labor, or to boost labor should it slow down. Pitocin is "synthetic oxytocin" - the drug used to induce labor. A small amount of Pitocin is mixed in a large bag of IV fluid and given slowly to the woman via intravenous line.

The woman and her baby are monitored closely using continuous electronic fetal monitoring (as we discussed last week). Pitocin can cause uterine contractions to become very strong, and very frequent, and difficult for the woman to handle without pain medication, although the medication dosage can be adjusted if this seems to be the case. Prostaglandin gel is a medication applied directly to the cervix to soften it and help it begin to dilate. If prostaglandin gel is used in conjunction with Pitocin, less Pitocin may be necessary to cause effective labor. Usually (3/4 of the time) women whose membranes rupture before labor begins (PROM) go into labor on their own within 24 hours, so often being patient and waiting for a day to see if labor will start spontaneously is all that is needed (rather than inducing labor quickly with Pitocin).

3. Electronic Fetal Monitoring
   As discussed last week (review if necessary)
4. Episiotomy
   This is a common surgical procedure that enlarges the vaginal opening just before birth. The cut can speed delivery be a few minutes, which can be important if the baby is in distress. It can help a baby through a tight perineum. It can prevent spontaneous tears which doctors often feel are harder to repair than the episiotomy. (Both episiotomy and tears are repaired using stitches that dissolve while healing is completed). Some studies have indicated that episiotomies cause more damage than spontaneous tears - there is a lot of controversy. Talk with your doctor/nurse midwife about the issue (before you go into labor).

There are two types of episiotomy:

a. Midline - This cut goes straight down toward the anus, is less painful, heals more quickly, but is also more likely to extend into the anus (3rd degree laceration).

b. Mediolateral - This incision angles on the bias. It can cause more discomfort while healing, but is less likely to damage the anus or rectum.

Women can sometimes avoid tearing or episiotomy if the perineum is relaxed with warm compresses and/or oil. Relaxing your pelvic floor muscles and getting into a good gravity - enhancing (upright) position for pushing can also help. All tears and episiotomies can be repaired. Medication and ice compresses then heat (warm compresses) can help with healing and discomfort.

NOTE: The doctor/nurse midwife may need to use a local anesthetic to numb the tissue where the episiotomy is made. Most women notice neither the injection of the anesthesia nor the cutting of the episiotomy. They are quite busy pushing the baby out!

5. Forceps
These metal instruments are used during a vaginal delivery during the second (pushing) stage of labor if the birth needs to happen quickly (fetal distress), mother is unable to continue pushing, the baby's head is very big or in the wrong position to be born without assistance. The forceps look like giant salad tongs. They are not sharp and are designed with curves to conform to your vagina and your baby's head.

Demonstrate Forceps Delivery, Vacuum Extractor Delivery equipment

Women who receive epidural anesthesia are more likely to need a forceps delivery. The epidural block reduces the urge to push and may relax your pelvic floor muscles so much that your baby's head does not rotate as it should.

Babies who are delivered by forceps may have bruises on the face. The mothers are more likely to need an episiotomy.

6. Vacuum Extractor
This is an alternative to forceps. A cap is applied to the top of the baby's head and connected to a vacuum pump that supplies suction pressure. As the mother pushes during a contraction, the doctor pulls on the cap, which moves the baby's head down. The vacuum extractor is actually less likely to cause injury to mother and baby than forceps. Babies may be born with temporary swelling on the scalp where the vacuum extractor cap is applied.

QUESTIONS	CONTENT	ACTIVITIES

7. Catherterization of the Bladder
A sterile tube is inserted into the woman's urethra and bladder to drain urine if she is unable to urinate due to the administration of anesthesia.

Have any of you talked with your doctor/APN about the use of medications during labor and delivery?

IV. MEDICATIONS FOR PAIN RELIEF DURING LABOR AND DELIVERY

A. Childbirth is usually painful, and there are many ways for women to cope with this pain. You have been learning about ways to break the "Fear-Tension-Pain" cycle which do not use medications. These methods, including relaxation and breathing techniques, have the advantage of the absence of side effects from pain medications, and no slowing down of the labor process. Many women find the "natural childbirth" techniques to be all they need.

Women's goals for their birth experience differ, though, and so do their pain thresholds and labors. Although a woman should be encouraged to experience birth without medication if it is desirable and possible for her, some labors are actually helped by medication.

You should discuss with your doctor/APN your preferences and their experiences and recommendations before your go into labor.

B. Medications: Weighing the Risks and Benefits:

1. Many medications given during labor can possibly affect your baby after birth. There can be subtle problems (fussiness, less muscle tone) to serious problems (such as respiratory depression).

2. Medications can cause side effects in the mother as well, such as a drop in blood pressure, headaches, nausea, slowing down of labor, the need for other interventions such as forceps delivery, episiotomy. These side effects can have an impact on the baby, too.
3. The way a woman gives birth can affect her self-image. A woman who receives minimal or no medication usually forgets her pain quickly and feels as though she has mastered a difficult challenge. On the other hand, medications can help a woman through a difficult labor process. Getting some relief from pain can help you to regain the energy you need to push your baby out.

USE MEDICATION ONLY IF YOU NEED IT, BUT DON'T FEEL GUILTY IF YOU DO!

C. Analgesics:
These medications which offer partial relief to the conscious patient by increasing her pain threshold. These medications are narcotics.

Demerol - is the most common narcotic used in labor. It can be given as an injection (usually in the hip) and takes 40 to 50 minutes to work fully. Pain relief lasts for about 3 to 4 hours. It can also be given in an IV, which works in 5 to 10 minutes and last about one hour.

Other substitute narcotics which may be used in place of Demerol include:

Dilaudid, Nubain, Sublimze, Talwin, Stadol, Numorphan

Ask your own doctor/nurse midwife what is typically used at the hospital your will deliver at. Ask about its length of action, effectiveness, and side effects.

Usually narcotics are not given too early in labor (before 4 cm. dilation) as they can slow the process of labor. They are also avoided late in labor, as the baby can become so sedated that it has a hard time breathing on its own after birth while under the effect of the drug (depressed respiration - Narcan can be given to baby if necessary to reverse neonatal respiratory depression).

Sometimes narcotics are mixed with a tranquilizer, such as Vistaril or Phenergan, to prevent nausea and help lower mother's anxiety.

D. Anesthesia - produces a partial or complete loss of feeling or sensation.

1. General Anesthesia
   Puts mother to sleep - totally unconscious. This is usually done now only an emergency or if for some reason regional anesthesia cannot be done. Major potential for problem is aspiration (inhaling stomach contents into lungs).

   IV - Sodium pentothal is given and the person goes to sleep. Thus a tube is placed in the mother's throat and an anesthetic gas (often nitrous oxide) is administered.

2. Epidural Anesthesia - A Regional Anesthesia
   a. With an epidural, the mother remains awake and aware, but she feels little or not sensation below the waist. With a successful epidural, the mother's labor continues but she hardly feels it - excellent pain relief for most women.
   b. The epidural must be administered by a trained anesthesiologist who has the special skills necessary. A tiny catheter (tube) is placed using needle in the mother's back into the epidural space near the spinal cord, but outside the covering of the spinal cord. The catheter is taped in place and a continuous flow of anesthetic bathes the nerve roots of your lower body.
   c. If a woman decides she wants to have an epidural, she must also have an IV and continuous electronic fetal monitoring. She will not be able to get out of bed because her legs are anesthetized (cannot stand or walk). Her blood pressure will be monitored constantly be cause the most common side effect is a drop in blood pressure which can be dangerous for mother and baby. Her birth will be "high tech".
   d. An epidural cannot be given until a woman has dilated to 4 or 5 centimeters. Given too early, it is likely to slow down labor. (Increase the need for Pitocin).
   e. Women who have epidurals may have difficulty pushing the baby out. There is an increased risk of a larger episiotomy and the need for forceps delivery. (The medication administration can be stopped for the 2nd stage of labor, though).

f. Epidurals do not always work. Some women receive "patchy" anesthesia, causing a feeling that some parts of the abdomen are anesthetized and other parts are not.
g. Occasionally (about 2%) the needle for the epidural accidentally punctures the membrane encasing the spinal fluid, causing a severe "spinal headache". The anesthesia can sometimes rise to high in the epidural space and interfere with the woman's breathing (rare).

Epidurals are often used if a woman needs a caesarean section to deliver her baby.

3. Spinal Anesthesia - A Regional Anesthetic

a. Spinal anesthesia requires the injection of the anesthetic directly into the space surrounding the spinal cord. It is administered in the same way as an epidural, but the woman receives a one-time dose and no catheter is left in place. The results are quick (5 minutes) and strong. Mother remains awake and aware.
b. Spinals are usually used more for C-sections and forceps deliveries. Spinals are easier to give than an epidural and give intense anesthesia with less medication. Less of the medication transfers across the placenta.
c. Approximately 5% of women may get a "spinal headache". (Epidural blood patch can be done to relieve the severe headache).
d. Spinals can cause a drop in blood pressure - IV fluids are given to prevent or treat.

4. Pudendal Block
   a. This form of regional anesthesia is only used during the second stage of labor to numb the vagina and perineal area for an episiotomy and/ or for a forceps delivery or vacuum extraction.
   b. A pudendal block is given in two steps with a long needle through the vagina. The tip of the needle injects a local anesthetic into the pudendal nerve, first on one side, then on the other.
   c. This anesthesia usually does not interfere with the mother's ability to push her baby out.

5. Perineal Local Anesthetic
   Offers the least interference with the natural process of birth. The doctor injects a local anesthetic into one or more spots in the perineum to numb the area for performance and repair of episiotomy.

E. TALK WITH YOUR DOCTOR/APN ABOUT THE USE OF PAIN MEDICATIONS DURING LABOR AND DELIVERY. Keep an open mind about medication use. Labor may be harder - or easier - than you expect. Be sure your doctor/APN and labor partner understand your preferences before your go into labor so that they can support your efforts. You can change your mind if you need to.

V. THE SECOND STAGE OF LABOR - The actual delivery of your baby.

A. Review of the Stages of Childbirth:
   1. FIRST STAGE - Onset of labor to full dilation and effacement of the cervix. Most of your time in labor will be spent in this stage. The pace of labor is individual averaging:

      First Labor: 13-14 hours Second Labor, etc: 5-7 hours

2. SECOND STAGE - From full dilation of the cervix to birth of the baby (15 minutes to 3 hours).

3. THIRD STAGE - The delivery of the placenta (about 5 to 20 minutes).

4. FOURTH STAGE - Recovery period following birth - "Postpartum".

B. During labor, the baby descends and accommodates the largest diameter of mom's pelvis to the largest diameter of the baby's head. Molding occurs. Descent occurs with a combination of mother pushing with her diaphragm and abdominal muscles, and uterine contractions.

C. The presentation of the baby is determined by the position and body part of the baby's presenting part.

1. Head down
2. Posterior
3. Breech (many physicians prefer to do a C-section)

Childbirth Education Series Flip Chart

D. During the 2nd stage of labor, the mother actively works to push her baby out. The uterus continues to contract about every two minutes, and the mother "pushes" during contractions. For some women, pushing feels good and provides relief. For other women, pushing does not bring relief. The feelings are intense, often described as "burning", "pressure", "stretching", and "splitting" as the baby moves down. Labor is almost over, and this motivation allows women to push through their pain. Many women "grunt and groan" during this stage, which is a sign that woman is working effectively with her body.

E. If a woman has had epidural anesthesia, she may not feel these sensations. She will need to rely on someone (nurse or labor partner) to let her know when to push as a contraction starts (look at fetal monitor).

F. DELIVERY ROOM

You will be moved to a special "delivery room", or you may spend your entire labor period in the hospital in the same room - "Labor-delivery-recovery" room (LDR).

The woman's perineum is washed with antiseptic and draped with sterile towels.

Ask for a special mirror so that you can see the delivery as it occurs (if you wish).

The doctor/nurse midwife will decide as the baby's head is crowning whether an episiotomy is necessary.

Push as your body urges you to! While pushing, hold your breath if that feels right, but for no longer than 5 to 6 seconds. (Labor partners can help to remind mother to take a breath, if necessary!) Breathe lightly in between the 5 or 6 second pushing bursts. As the contraction ends, be sure to relax your self with several good cleansing breaths. As your baby's head begins to distend your vagina and you feel the burning sensation, follow your doctor/nurse midwife's directions to breathe, blow, or push gently as the baby is born.

Positions for "pushing" and birth:
Upright pushing positions (squatting) allows gravity to work with your pushing efforts.

A curled up "C" position with the mother's head up and her hands on her knees is used frequently in the hospital. The mother's head and shoulders are up, her chin on her chest, elbows out, and legs and perineum relaxed. The labor partner can support mother's head and shoulders and give her lots of encouragement!

As the baby's head is delivered, the doctor/nurse midwife will ask you to stop pushing so that the baby's mouth and nose can be suctioned for mucus and amniotic fluid. The head, which usually has been facing the floor, turns naturally to one side. That is because the shoulders are entering the pelvis; they fit best if the baby is facing your side. With the next contraction, the baby's should emerge. The rest of the baby slips out easily. Your baby is born!

Shortly after your baby is born, the doctor/nurse midwife will cut the umbilical cord (or direct your partner in doing this!). Your placenta will detach from your uterus, usually within thirty minutes of birth, and mild uterine contractions will occur as the placenta is delivered.

If you plan to breastfeed your baby, and you and your baby are in good condition, doing so in the delivery room is an excellent idea. Babies are usually very alert for several hours after delivery and very receptive to their first breastfeeding experience. Breastfeeding also helps your uterus to contract and begin to heal. Breastfeeding experts recommend that you breastfeed your baby as soon as possible after delivery.

After delivery, you and your baby are watched closely for several hours. Your uterus will be massaged to make sure involution is taking place. Your blood pressure will be checked. You will bleed vaginally quite a lot for several days as your uterus contracts and closes off the blood vessels inside your uterus.

Many women experience chills and even shaking of their body during the second stage of labor and immediately after delivery. This is very normal! Your body has experienced tremendous changes during a short time. You will be given warm blankets which will help ease the chills.

VI. CAESAREAN CHILDBIRTH

A. Caesarean Section:
Is the operation in which a baby is delivered through an incision in the abdomen, rather than through the vagina ("C-Section"). Approximately one in five women have C-Sections in the U.S. It should be seen as a positive and successful childbirth experience. Most C-Sections are not planned ahead of time, so it is important to prepare for the possibility of a surgical birth.

B. Why is a Caesarean Section Done?
It is done when vaginal delivery might endanger the mother or the baby.

Indications:

1. Abnormal position (breech or transverse)
2. Fetal distress
3. Cephalopelvic Disproportion (CPD) (Baby's head is too large, or in the wrong position to pass through the pelvic opening)
4. Prolapsed cord
5. Placenta Previa (The placenta is located over the cervix instead of in the upper part of the uterus. This blocks the baby's exit.)
6. Placenta Abruptio (The placenta separates from the uterus prematurely, causing severe bleeding)
7. Failure to Progress - Ineffective contractions
8. The mother's medical conditions (diabetes, heart disease, toxemia, genital herpes, high blood pressure)
9. Previous C-Section (Although many more women and their physicians are practicing "VBAC" - Vaginal Birth After Caesarean - for later deliveries)
10. Multiple births

C. What to Expect (probably):

1. Abdomen and pubic hair are shaved and washed
2. Blood and urine samples are taken
3. IV
4. Urinary catheter to empty bladder
5. Sign consent
6. Anesthesiologist will attach a number of monitoring devices in the operating room to monitor your heart rate, blood pressure, oxygen content of your blood. A fetal monitor may be in place.
7. Anesthesia used will be either spinal, an epidural, or general anesthetic. With the spinal or epidural, you will be awake but pain-free and numb below the chest.
8. Unless it is a severe emergency, usually your labor partner can put on surgical clothes and be present at the delivery. He/she will stand or sit near your head. You can both talk to the medical staff.
9. Surgical drapes will placed over your whole body, except your head.
10. Incision made (2 types):

Transverse ("bikini") a horizontal incision just below the pubic hair line - most common

Midline (vertical) - incision from just below the naval to just above the pubic bone is quickest for extreme emergencies. Leaves a noticeable scar.

11. A caesarean delivery takes only five to ten minutes. Stitching the abdominal and uterine incisions after birth takes about 35 - 45 minutes. You may feel a "tugging sensation" as the baby is born.
12. You will be able to see your baby immediately after it is born, and your partner can hold the baby once it is cleaned and diapered. The baby will probably spend

some time in a special care nursery for observation be cause there is an increased risk of breathing problems for babies who have been delivered by C-Section.

13. You will be transferred to your room on the labor and delivery unit.
14. Breastfeeding is certainly encouraged as soon as you and your baby are up to it!

D. Caesarean postpartum changes are very similar to a vaginal birth, but you must remember that you have had major abdominal surgery and it will take longer to recover!
   1. Approximately three day stay?
   2. Pain medication available - take it!
   3. You will be encouraged to get up and walk soon after delivery (with help at first) - Do it!
   4. Gas pains - walking will help
   5. Diet - as tolerated (liquid - soft - regular)
   6. PLAN FOR HELP AT HOME. You need rest to recover. Do not lift heavy objects. Limit trips up and down stairs to one time per day in the first few weeks.
   7. Breastfeeding is possible and encouraged. Get help with positioning your baby.
   8. Some women feel disappointed and depressed after having a C-Section. Being able to talk honestly about it helps. There are support groups available.

*The ultimate goal of all birth experiences, regardless of the technique or method, is a safe birth resulting in a healthy mother and baby!

Take tour of Boven Birth Center or Zeeland Birth Center

Review breathing techniques and review Parenting in Pregnancy
**See Parenting in Pregnancy - Decisions, Decisions, Medical & Parental Intervention*

Parenting in Pregnancy

...begin at the beginning

DECISIONS, DECISIONS...
MEDICAL AND PARENTAL INTERVENTION

Just as labor is an inexact science, so is parenting. Choices and risks are part of both and there is no one "right" way to do either.

PURPOSE:
To discuss the necessity of making choices in labor (such as medication intervention in pain management) and making choices in parenting (such as feeding on a schedule versus feeding on demand) and how those choices affect the outcome of the delivery and the family.

GOAL:
To help parents weigh the intervention or action against the risks involved when making decisions in both labor and parenting.

DISCUSSION:
There are risks involved in both the birth process and in parenting, but with preparation and education, informed decisions can be made.

THE CHOICES... THE RISKS

During Labor:	In Parenting:
Medical interventions are necessary under some circumstances for the health of the mother or child. There are possible complications with every type of medication. If the decision is made to use this intervention, it is extremely important that the partner or coach supports the mom in that decision.	Parenting interventions are necessary under some circumstances for the health of the family. They range from learning "when" to intervene with your newborn by answering their cues and crying, to learning "when" to begin disciplining your baby. Again, support of the decision by both parents is vital.
When medication is administered, it is unique to that particular mother. How she responds physically and emotionally has everything to do with whether the outcome is successful.	Each time parents make a decision regarding their child, it is unique because children have unique personalities. Parenting techniques must be diversified in order to be successful.
Unexpected complications in the birth process are the norm rather than the exception. Cesarean birth can be one of those unexpected complications and is a choice that can save a life.	Parenting always brings unexpected complications. The skills used to cope with the unexpected in labor are the same skills used for survival of a healthy family.

Recognize when intervention is necessary. Welcome the opportunity to support your unique family.

FIRST CLASS DELIVERY
Feeding Baby
Class IV

OBJECTIVES

By the end of this class the attending parent(s) will be able to:

1. Explain when breast, formula, and regular cow's milk may be used during the infant's first twelve (12) months, and one (1) nutritional difference between each.

2. Identify one (1) supplemental nutrient that the infant may need after the first three (3) months of life.

3. Explain why and how bottle feeding equipment is cleansed and list two (2) common mistakes to avoid in preparing formula.

4. Identify three (3) problems which may arise regarding infant feeding (breast/bottle) and one (1) possible solution for each.

5. Explain why, when, and how solid foods are introduced into the infant's diet.

6. Describe two (2) precautions that should be taken when preparing an infant's solid food.

CLASS OVERVIEW:

-Developmental Timeline
-Breast feeding vs. Bottle feeding
-Infant nutritional needs
-Breast feeding
-Bottle feeding
-Solid foods
-Review breathing techniques

DEVELOPMENTAL TIME LINE

Month 1
Eats every 1 ½ - 3 hours
Longer at night
Nurses up to 20 minutes

Month 2
Sucking fingers and fists

Month 3
Swallowing voluntarily
Grasping voluntarily

Month 4
Sits erect
Head steady
Reaches hands to mouth
Anticipates feeding
Can turn head away
Begins to swallow liquid foods

Month 5
Grasps and mouths objects at will

Month 6
Finger food
Taste
Interest in eating
Moves food from front of tongue to back of mouth
Teething may start

Month 7
Sits without help
Begins chewing
Able to grasp

Month 8
Baby mashes food with jaw
Swallows different texture foods
Grabs spoon

Month 9
Self feeding with a spoon
Holds cup and drinks

Month 10
Moves spoon to mouth
Pokes at food with finger
Finger feeds from tray

Month 11
Feeding skills get better
Self feeding begins
Insists on holding the spoon

Month 12
Baby builds skills in biting, chewing, swallowing

QUESTIONS	CONTENT	ACTIVITIES

How does feeding a baby affect their emotional growth?

I. INTRODUCTION

A. Feeding is an important and pleasant time of day for your baby. It provides closeness, warmth and trust as well as to satisfy your baby's hunger. The baby should be held during this time.

B. Attitude and Decision Making
**See Parenting in Pregnancy handout - Nutrition . . . How to Feed a Family*
-Mixed feelings are common
-Share feelings with each other
-Whether to breast feed or bottle feed should be decided before the baby arrives as both methods take preparation
-Base decision on accurate information from reliable sources

What are some of the advantages of breast and bottle feeding.

C. Advantages of Breast/Bottle Feeding:

BREAST	BOTTLE
Easier to digest	Can measure amount
Less allergies	Others can feed
Economical	Mother doesn't have to consider baby when taking medications
Sterile	
Right temperature	
Always available	
No preparation	
Less obesity in baby	
Stimulates involution	
Weight loss easier	
Antibodies transferred	
Good for tooth and jaw development	
Improves cardiovascular health of baby	
Specifically designed for humans	
Complete - nothing missing	
Babies have fewer illnesses and dental problems	

List advantages and disadvantages on board.

Students help create list.

II. INFANT'S NUTRITIONAL NEEDS:

A. Introduction

How is energy measured?

The rapid rate of growth during the baby's first year requires energy. Energy maintains body functions and meets the needs for growth and activity.

Energy is produced from protein, carbohydrates and fats measured in calories.

B. Nutrient Supplementation Recommended Based On Type of Milk Used to Feed Your Baby:

Which nutrients won't your baby get if you are only breast feeding ... bottle feeding?

1. Breast
   Adequate quantities of human milk from a well nourished mother can meet the nutritional needs of infants for at least the first 6 months with the possible exception of Vitamin D iron and fluoride.

   Iron should be supplied at age 4-6 months, using vitamin drops or iron enriched cereal. Prevents anemia.

   Fluoride supplement by age 6 months. Get prescription from M.D.

2. Formula: Supplementation varies with formula type used.
   -Infants receiving non-iron fortified formula at four months need iron.
   -Infants receiving iron fortified formula need no vitamin mineral supplementation
   -When water doesn't contain fluoride, or if using only ready to feed formula, recommend 0.25 mg

supplements by 6 months.

Who decides what vitamins your baby needs?

3. Different Type of Vitamin Supplements Available. Doctor Will Advise When to Start
   -Fluoride gtts. - at 6 months if water supply is well water or provides less the adequate fluoride level. (Excessive intake of fluoride may mottle teeth. Squirt vitamin gtts into cheek area. They taste OK to baby. Give prior to bath or at a regular time each day.

C. Feeding Schedules
   1. Each feeding should take at least 20 minutes:
      -Cuddling needs
      -Sucking needs
   2. Check nipple hole - affects sucking time
   3. Feeding amount and number of feedings per day if formula fed:
      1-6 months - Start with 2-3 oz. feedings, 6x/day Increase to 6-8 oz feedings as baby shows need At the same time the number of feedings decrease from 6/day to 5/day, and finally 4/day
      6-9 months - 6-8 oz feedings with 3-4 feeding per day and some liquid from the cup, plus some solid food
      10-12 months - 6-8 oz feedings, 3x/per day plus some solid food
   4. If breast fed, feedings will be ad lib with solids introduced around 6 months of age

III. BREAST FEEDING

A. Introduction

Breastfeeding Video

Breast milk is considered the ideal food for baby. Even with its convenience, patience and a commitment are needed as the first weeks are not always easy.

B. Preparation

There are various theories to what nipple preparation is needed. Some say it makes no difference.

1. Wash with water only so as not to remove the natural oils.
2. Avoid drying agents such as soap and alcohol.
3. Expose to warm air to dry.
4. Open bra flap periodically so nipples can rub against clothing.
5. No creams or lotions necessary.
6. Expressing colostrum is NOT RECOMMENDED

Inverted nipples can successfully breast feed. Nipple shells exert even, continuous pressure which gradually forces nipple further through central opening.

C. Equipment Needed for Breast Feeding:

1. Nursing bra - allows easy and discreet access to breast. Different types available. Need two. Buy between 24-36 weeks - more true to size.
2. Nursing pads - different types. No plastic liners - change when damp.
3. Breast pump - hand expression or electric. Available for rent or purchase.
4. Breast shields - Not usually recommended
5. Minimal equipment to supplement with bottle of formula or breast milk.
   - 3 bottles
   - 3-5 nipples
   - bottle brush

D. Changes Required For Breast Feeding

Who remembers what changes need to be made in your diet when nursing?

1. Increase rest periods.
2. Increase fluid intake, as you are always thirsty. Keep a glass of water next to you at each feeding.

ACTIVITIES

3. Follow your lactating diet. This will increase the success rate as well as meet the nutritional needs of mother and baby.
4. Diet - good nutrition for your own good health and production of adequate breast milk. 500 additional calories every day, 6-8 glasses of water, quart of milk for calcium. Iron supplement. If mom or baby sensitive to milk, delete and add calcium supplement as recommended by physician.

FOOD GROUPS	LACTATING WOMEN
Protein foods	6 oz. total (2-3 oz. servings)
Milk	4
Fruit	2-4
Vegetable	2-4
Grain	6-11

E. Family Can Support Mother During Breast Feeding by:
   1. Understanding mechanism
   2. Physical, mental and emotional support
   3. Give her confidence
   4. Avoid situations causing exhaustion and fatigue

F. Physiology of Breast Feeding:
   1. Colostrum:
      First substance (thick, sticky, yellow) baby receives before mature milk come in (2-4 days later). Has 5-6 time more protein and minerals and half the carbohydrates as later milk. Gives temporary natural resistance to certain viral and bacterial infections which cause colds and diarrhea. Acts as a cathartic. May help to reduce jaundice and weight loss.
   2. At hospital, request as soon as possible. If put to breast within first hour, baby has instinctive reflex to suck. If

not, reflex diminishes and returns 40 hours later. May explain why baby sluggish first few days. Baby can also become "nipple confused" if given artificial nipples, and will become unable to latch on properly (can be corrected with help).

3. Breast
   Each breast has clusters of 10-20 glands (independent of breast size) that produce milk.
4. During pregnancy, changing hormones cause breasts to grow.
5. After birth, hormones cause milk production.
6. Baby sucks - message from nerve endings in nipple sent to pituitary. Pituitary secretes hormone prolactin - prolactin signals milk glands to begin production - 2-3 minutes after prolactin causes milk production, sucking signals pituitary to release oxytocin - oxytocin causes muscular cells to contract and squeeze (let down reflex) milk out of glands - milk passes from milk duct to reservoir where baby can get it. (Oxytocin also causes contractions of the uterine muscles, called after pains, promoting involution).

What reflexes play a role in infant feeding?

7. Reflexes of Infant:
   Rooting: Touch cheek closest to nipple and head will turn toward nipple.
   Sucking: Squeezing action over the areola against milk ducts.
   Swallowing: Located at back of mouth. Check position of baby's head.
8. Reflexes of the mother:
   Let down reflex - stimulated by baby's cry, sucking, emotions. Sensation of tingling, fullness, dripping or spraying from breast, thirst, change in baby's sucking pattern. In early days takes 5-7 minutes to occur.
9. Milk comes in 3rd - 7 th day.
10. Milk is more abundant in the morning due to diurnal

rhythms.

11. Baby is able to empty breast in 7-10 minutes sucking/ swallowing time. This doesn't mean you need to or should limit baby to this much time per side. If baby properly positioned and sucking correctly, time at breast will not lead to sore nipples.
12. Milk supply meets demands - sucking on an empty breast stimulates increase in milk production. So a hungry baby increases milk supply.
13. Frequency days - baby periodically nurses more frequently to increase milk production. Usually occurs at predictable times - 10 days (along with softening of breasts), 3 weeks, 6 weeks, 3 months, 6 months.

G. Techniques:

Teacher demonstrates positioning

1. Wash hands
2. Position - mother comfortable, relaxed, confident and rested. May lie or sit. Use pillow to support infant and bring closer to breast.
3. Use cradle, football, side lying positions
4. Grasping the breast using C-hold. Keep fingers well back from areola (on chest wall p.r.n.).
5. Stroke infant's cheek with nipple to cause rooting reflex. Stroke lips to cause him to open mouth. Be sure mouth is wide open before latching on.
6. Keep breast from pressing against baby's nose by placing a finger against the breast to keep it out of the way, or tipping entire breast up with lower fingers.
7. Use both breasts at each feeding. Alternate the breast you begin with each time. Pin bra.
8. No need to restrict nursing time unless nipples very sore. Nurse 10 minutes on first side and unlimited time on second side. If baby gets sleepy before first 10 minutes are up, detach baby and switch sides. Continue switching as often as needed to keep baby

awake.

9. From the time you put baby to breast, takes 3 minutes to stimulate let-down reflex. Let-down occurs in both breasts at the same time, and occurs several times during feeding.
10. Releasing the nipple - gently press your finger against breast at the corner of baby's mouth past gums, releasing the suction before removing nipple from baby's mouth. Hold finger in mouth until nipple removed.
11. You may have a weak nurser or a vigorous nurser. In the hospital request earliest nursing as possible. Ask for help after trying for 10 minutes. Ask if hospital has lactation consultant or breastfeeding specialist on staff.
12. Manual expression - in shower, or use hot wet wash cloth over breast. Place thumb and forefinger behind the milk ducts. Press breast back into chest and then roll fingers down areola. Repeat and rotate the position of the grasp so all ducts are emptied.
13. BURP:
    -to remove swallowed air from baby's stomach
    -don't forget a burp cloth
    -at first, burp after each side
    -baby may stop drinking when he needs to burp
    -many breast fed babies don't swallow much air and don't burp much

How To:

1. Hold baby firmly against your shoulder. Support the buttocks with one hand; gently rub or pat baby's back with the other hand.
2. Lay baby fact down on your lap. Let his stomach rest on one leg with his head over your other leg. Gently rub or pat his back.

Demonstrate with doll.

Each student is provided a doll

QUESTIONS	CONTENT	ACTIVITIES
If you are breast feeding should you offer your baby a supplemental bottle periodically? Why?	II. Supplemental Bottles: 1. Avoid before breastfeeding is established if possible - 3-6 weeks. The more you breast feed the sooner it is established. 2. Freeze your own breast milk. If using formula, powder formula is easiest to use and less waste. May be better accepted if given by a person other than mother as baby can smell your milk. 3. Can use breast pump to express milk for bottle feeding. -refrigerate immediately and can be stored 48 hours. Shake before giving to baby. -frozen in refrigerator freezer 1 month -frozen in separate freezer for year. 4. Equipment for supplemental bottles: - 3 bottles - 3-4 nipples -bottle and nipple brush	Handout: How To Freeze Breast Milk
How do you know baby is getting enough breast milk?	I. Concerns: 1. Baby hungry so often: easier to digest satisfying appetite shorter period of time causing more frequent feedings (every 2-3 hours) 2. How do I know baby is getting enough? -at least 6 wet diapers and 2-5 BM's daily in first 2 months -alert -weight gain -growth spurt at 3 weeks, 6 weeks, 3 months, and 6 months. Takes 48 hours to build up milk supply 3. Drugs: whenever possible - don't take. Safety of many drugs not known. -always inform your doctor you are breast feeding - caffeine, nicotine, marijuana enter infant - alcohol concentration in milk equal to concentration in blood	

QUESTIONS	CONTENT	ACTIVITIES
	4. Employment plans and/or school situation 5. After pains 2-3 days. Ocytocin (let-down reflex) causes uterus to contract. 6. Caesarean childbirth - okay to breast feed. 7. Modesty 8. Birth Controls Pills not recommended 9. Must I avoid certain foods? No, only if it seems to bother mother and baby. Takes 4-6 hours for food to be tasted in milk. 10. Allergies: always something in mother's diet.	
What problems might you anticipate?	J. Problems: 1. Engorgement: Milk ducts are over stretched. Develop 3-5th day. Can occur at any time feedings are missed. Should be avoided because severe engorgement can damage milk producing glands. -ice between feedings -heat before feedings -massage -short (20 minutes) frequent (every 2 hours) feedings 2. Preference for one side 3. Fatigue 4. Sore nipples: -Air, sunshine and avoid plastic lined nursing pads -Heat lamp, 40 watt bulb 18 inches away for 10 minutes after each nursing period -Start with less sore nipple as infant nurses more vigorously at beginning. Nurse frequently for short periods. -Cracked nipples -Change position during feeding -Most sore nipples can be avoided by proper positioning and latch-on 5. Infant sleepy: -Nurse ASAP after awakening	Discuss students concerns regarding breast feeding.

-Waken every 2-4 hours until supply established
-Be patient: hard for infant to coordinate suck, swallow, breathing.
-If crying, must calm first
-Use techniques to keep baby awake. Wash face, change diaper, "switch nurse", nurse with head elevated

6. Disinterested: may be groggy from sedation or had bottle in nursery
7. Clogged milk ducts. Reddened area or tender spot.
   -Soaking of dried secretions covering particular nipple opening
   -Allow baby to nurse often or longer
   -Begin nursing on affected side at each feeding until resolved
   -Apply heat and massage
8. Breast infection:
   -Apply heat
   -Get plenty of rest
   -Keep the breast fairly empty with frequent feedings
   -Medication if prescribed by private physician
9. Let-down not at feeding time (infant cry, thoughts).
   -Press hard against nipples with heels of hands or fore arms until tingling stops
   -Release during sex

K. Weaning
-Breast feed as long as you enjoy it
-At least six weeks
-Drop one feeding
-Wait 4-5 days
-Continue until one feeding left
-Feed every 2-3 days, then stop
-Wean onto formula if under 9 months

-Wean onto cup if 9 months
HINTS:
-Don't let baby hold bottle
-No juice in bottles
-No bottles in bed

IV. BOTTLE FEEDING:

A. Introduction
Not every wants to breast feed. No reason to feel pressured or guilty.

Equipment types available for students to see.

B. Equipment
1. Bottles: Need 8-10
Size: 4 oz - 8 oz
Brands: Evenflo, Gerber, Playtex Nurser
Material: Plastic, glass. Clear, colors, different shapes
2. Nipples: for water, juice, formula. Size of hole controls flow. If hole too large, excessive bubbles in bottle, formula may dribble out of mouth, infant gags. Tighten cap on bottle or get new nipple. If hole too small, minimal bubbling, bottle not emptying, infant fussy, baby tires easily.
3. Wide mouth container for nipples
4. Formula: Enfamil, Similac (recommend with iron), Pro-Sobee (soybean base). Check expiration date on can.
   a. Concentrate: Dilute with equal amount of water - read directions
   b. Ready to serve
   c. Powder - cheapest, good to use if breast feeding
   d. Individual feeding in can or bottle (expensive)
5. Bottle and nipple brush
6. Can opener
7. Spoon

QUESTIONS	CONTENT	ACTIVITIES
	8. Measuring cup 9. Funnel 10. Spoon for mixing 11. Something to warm bottle 12. Bottle warmer	
How much formula do you make?	C. Preparation Bottle/Equipment -wash hands -clean preparation area -wash all equipment in hot soapy water -wash tops of cans -start with 4 oz. per feeding. Make enough so 1 oz. left over. Increase amount in bottle when infant starts to empty it.	
	D. Storage of Formula 1. Chill until feeding time as bacteria multiply faster at room temperature 2. Discard formula left in bottle after feeding 3. Discard if bottle out more than 45 minutes 4. Use prepared formula within 48 hours 5. Always check expiration date on can when purchasing and preparing.	
	E. Techniques for Feeding: 1. Cradle baby with one arm, letting head rest in crook of your elbow. make sure eye contact is established. 2. Don't prop bottle. Closeness important, won't risk choking. 3. No bottle in bed. Don't start hard-to-break habit 4. Start with clean hands 5. Hold bottle so nipple filled with formula (prevents excessive air). 6. Let head fall back slightly to aid swallowing 7. Change arms each feeding	Demonstrate techniques using a baby doll.

QUESTIONS	CONTENT	ACTIVITIES

8. Don't force baby to empty bottle
9. Warm bottle. Bottle warmer, pot with water on stove, microwave recommendations (don't put in nipple or cap). Check temperature of formula. CAUTION: microwave may not heat formula evenly.

What might it mean if baby spits up?

10. Rinse bottle when done. Soak in cold water to prevent milk scum from forming.
11. Spitting up. Small amount is normal; poor sphincter control. Allow infant to rest after feeding. Sit in infant chair when done. Burp more frequently. Change temperature (cooler) of formula.
12. Time it takes to feed varies. Twenty minutes good time.
13. If getting more formula than recommended by pediatrician, supplement with sterile water. Do not add sugar or Karo syrup, or honey.

How do you burp your baby?

F. Burping

BURP: To remove swallowed air from baby's stomach

1. Don't forget a burp cloth
2. At first burp after every 2 ounces
3. Later, usually after half the bottle
4. Baby may stop drinking when he needs to burp

HOW TO:

1. Hold baby firmly against your shoulder. Support the buttocks with one hand; gently rub or pat baby's back with the other hand.
2. Lay baby face down on your lap. Let his stomach rest on one leg with his head over your other leg. Gently rub or pat his back.
3. Sit with your baby on your lap. Let baby lean forward with his chest against your wrist as you hold him under his armpit or chin. Gently rub or pat his back with your other hand. Be sure not to let your baby's head flop

QUESTIONS	CONTENT	ACTIVITIES
What is colic?	backward. G. Colic Unexplained bouts of crying, sometimes accompanied by abdominal distention, spasms, and/or passing of gas. It generally occurs at the same time of the day. It may be caused by feeding problems, maternal anxiety, or allergy to milk. It is aggravated by tension in the household. The infant is not ill. Something, possibly immaturity of the digestive system, causes hyperactivity of the bowels. Generally lasts 3 months.	
Do you know remedies for colic?	1. Remedies for Colic: a. Decrease the intake of milk or milk products in your diet if you are breast feeding your baby. b. Borrow or buy "Snugli" (front carrier). The combination of swaddling, body contact and gentle motion it provides puts many fussy babies right to sleep. c. Take baby for car rides. For some reason, colicky infants seem to respond to vibrating motors. d. Walk baby face down, placing baby's body across your arm with your hand under the abdomen to apply gentle pressure. e. Buy and play a record of a mother's heartbeat as heard in the womb. f. Take the baby outside. Many infants moods change dramatically once they are in new sur roundings.	Ask students for ideas
	H. Problems and Concerns 1. No propping bottles. Ear infections due to baby laying flat. 2. No bottles in bed (nursing bottle syndrome: decay of teeth). 3. No juice in bottles. Nursing bottle syndrome (decay of	Display Poster: Bottle/Ear/ Teeth

QUESTIONS	CONTENT	ACTIVITIES

teeth due to going to bed with milk/juice bottle).

4. Discourage early introduction of cows milk into diet.
5. Allergic reactions. Rash, diarrhea, congestion, excessive spitting up, irritability. 12% to formula - 4.2% to breast milk (something in mother's diet).

How do you wean a baby from the bottle?

I. Weaning:

1. Begins when cup introduced. Usually babies are ready to drink from a cup around 6-7 month. Your baby is ready when he/she:
   - -Sits with some support
   - -Grabs or reaches for the cup, spoon or toys
   - -Moves cup to his/her lips
2. 9-12 months
3. When juice introduced at 5-6 months, use cup (easily liked).
4. Offer formula in cup at mealtime. Will gradually increase amount from cup until bottle no longer necessary.
5. Takes time. Easier just to give bottle but deprives child of new experience.
6. Hold or guide cup to prevent excess spills.
7. Hints: Don't let baby hold bottle, no juice in bottles, no bottles in bed.
8. Baby should be weaned from the bottle about 1 yr old

V. OTHER FEEDING INFORMATION:

What have you heard about scheduling your baby?

A. Schedules:

1. Demand feeding: Feed when baby seems hungry. Allow baby to start own schedule and gradually readjust. As gets older, can try waking him to feed earlier or play with him to delay a feeding. Helps to

establish milk supply.

2. Appetite Changes:

Increases	Decreases
10 days - 2 weeks	4-6 months
5-6 weeks	7 months
3 months	9-12 months

What are some questions you might ask your doctor/ APN to decide how supportive they are in your feeding choice?

B. Support Systems:
-physician/APN
-PHN
-LeLeche
-Family/Friends
-Books
-Classes on breast feeding
-Registered Dietitian
-Lactation Consultant at local hospital

What are your views on breast/bottle feeding? When do you suggest water/ formula supplements? What community resources do you suggest I contact for further information on breast/bottle feeding? During what hours are you available for questions on feeding problems?

How do you feel about pacifiers?

C. Pacifiers
1. Need to suck. If not satisfied during feeding looks for substitute.
2. Thumb: Always with him; harder to stop
3. Pacifier: Can throw away at 6-8 months.

VI. SOLID FOODS:

A. Introduction of solid foods is based on readiness. May differ if you are breast or bottle feeding.
1. Ability to swallow. Lessening of tongue protrusion

QUESTIONS	CONTENT	ACTIVITIES
	reflex around 3 months. 2. Double birth weight (4-6 months) 3. Sit supported 10-15 minutes with head erect. 4. Eye/hand coordination begins at 4-6 months and opens mouth in anticipation of food. 5. At 6 months of age, all healthy babies need food other than breast milk or formula to meet nutritional needs and calories, to learn taste, textures of foods - plus digestive system is mature enough to handle foods. 6. First semi-solid food is single grain cereal specifically for infants. Easy to digest and fortified with iron (6-8 tablespoons iron fortified cereal meets iron needs). Rice cereal first, least sensitive. Then barley, oats. Avoid mixed cereal until 8 months. Continue infant cereals until 18 months (iron needs). Make cereal with formula or breast milk. Consistency is very thin at first. Can use high iron dry cereals when appropriate (older baby, toddler). Feed your baby cereal from a spoon. 7. Start feeding formula or breast. Offer solids. Follow with formula or breast.	
How do you feed baby solids?	B. Feeding Solids 1. Position: Infant seat, high chair, or in your lap in a sitting position. 2. Start with small amount of food, tip of small spoon, and place in back of baby's mouth. Familiar with only sucking, may spit out the food. Introduce new foods when baby is happy, awake and mildly hungry. 3. One new food at a time, wait 5-7 days before adding another new food to determine sensitivity (vomiting, diarrhea, rash). 4. Infants whose parents or siblings are sensitive are a	Divide class into 3 groups. Formulate 3 problems regarding feeding baby and ask each group to comu up with solutions to their problem. Give time for each group to meet and reassemble to share findings of each group.

QUESTIONS	CONTENT	ACTIVITIES
	greater risk. Can occur 4 hours to 4 days. 5. Delay foods known to cause family hypersensitivity to 6-9 months. 6. Give small amount. Don't force. If rejects, try a few days later. Make sure consistency appropriate for age. 7. Don't add fat, salt, sugar or honey. 8. Let baby feed himself at earliest sign of willingness. Don't insist on finishing. 9. Once a jar is opened, use within 24 hours. Frozen home prepared, use within two months.	
		Samples shown.
	C. Equipment Available: 1. Heating dish - electric warmer or hot water warmer 2. Tableware - sizes according to age 3. Cup - Tommie Tippie, sipper seals (6 months) 4. Infant Feeders - DO NOT USE. Don't learn to experience texture, chew or swallow 5. If use microwave to heat baby foods - 15 seconds. DO NOT use to heat baby jar meats as they get hot spots and could burn baby. DO NOT MICROWAVE disposable bottle bags. May explode. Don't overheat; milk will boil. Do not leave caps or nipple on.	
When you are told to start cereals, what do you need to know? Kind? How much? How often?	D. Baby Foods: 1. Brands: Gerber, Heinz, Beechnut 2. Read labels 3. Check expiration date. 4. List of ingredients start with largest amount first. 5. Commercial baby foods no longer contain salt, MSG, sugar, nitrates. 6. All contain water, 70-90%. 7. Modified starches - empty calories used to solidify the foods. These break down if come into contact with saliva, causing remaining food to become watery. 8. Do not feed from jar. Saliva starts digestive process and food in process of digestion spoils sooner.	

9. Pressure sealed. Make sure sealed tight.
10. Various consistencies.
11. Strained, junior, toddler meals, meat sticks, juice.
12. Foods available:
    -Cereals - jars and those combined with fruit cost more. Higher in iron than adult cooked cereals. Use single grains (rice, barley and oats first). Easier to digest and less allergenic.
    -Desserts - may have poor nutritional value
    -Fruits - best tasting, good source of calories and some vitamins
    -Vegetables - fewer calories than fruits. Too many carrots may turn baby's skin orange.
    -Vegetables and meat - vegetables highest in amount in jar. Meat negligible. AVOID.
    -Meat and vegetables. Meat highest. If you buy combined foods, this is the first choice.
    -Meats - most nutrition for your money. High in protein. Egg yolk - high in protein, vitamins and minerals. Meatsticks. Have less water, more carbohydrate, protein and fat than meat in jars. DINNERS - AVOID rice, macaroni and noodles (wasted calories). Should be used as vegetable in meal planning.
    -High meat dinners - three times the protein of other dinners but ½ the protein of pure meats.

What does the term "nutritional cost" mean?

E. Making Your Own Baby Foods:
1. Avoid using canned foods. Vegetables have 6% salt; fruits canned most in light to heavy syrup. Washing off food does not remove salt and sugar absorbed.
2. Use fresh then frozen vegetables, and fresh fruits.
3. No carrots, spinach, beet greens, turnip greens, collard greens, or mustard greens homemade before age 9 months.

QUESTIONS	CONTENT	ACTIVITIES

What are the advantages of making your own babyfood?

What equipment is needed?

ADVANTAGES:
-Prepare from food cooked for family
-Can change consistency and texture to suit baby's needs.
-Don't add salt, sugar, herbs, spices.
-Know ingredients used.
-More nutrients and calories

DISADVANTAGES:
-Not as convenient.
-Not as much variety.
-Don't worry about sanitation
-Fewer calories, high percentage of water.

EQUIPMENT:
-Blender
-Sieve
-Food Grinder
-Fork
-Potato Masher
-Ice Cube Trays
-Plastic Bags

PRECAUTIONS AND PROPER HANDLING:
-Clean hands and equipment
-Clean food; food has bacteria
-Fresh food that is washed before preparing. Remove fat.
-Fresh meat
-Clean storage containers.
-Use within 24 hours.
-Freeze single portions using containers or ice cube tray portions and use within two months.

FOOD SHOULD BE COOKED:
-Largest size possible
-Least amount of liquid
-Least amount of time
-Steam when possible
-Peeled afterwards if possible

FRUITS AND VEGETABLES:
-Steam, peel, puree using cooking liquid, juices

MEATS:
-Braised, steam. Use meat or other juice to thin. Use cereal to thicken.
-After cooking, prepare in blender. Amount of fluid added determines consistency.
-Freeze in ice cube tray, then transfer single servings to plastic bags.

What are signs of readiness for finger foods?

F. Finger Foods:
1. 6-9 months: Zwieback, toast, crackers; baby gums and sucks
2. 7-9 months: Chopped fruits and vegetables
3. 8 months: Start to chew
4. 9 months: Cheese, apple slices (thin, peeled slices). Baby can choke on small hard food. Never give your baby: popcorn, peanuts, raw vegetables, chips, raisins, grapes, nuts, seeds or hot dogs that have been cut into round slices. Cut soft, round foods into quarters.
5. Self feeding is messy and time consuming. Develops coordination, independence, maturity.
6. Shape of finger foods important.

G. First Acceptable Table Foods:
   1. Mashed, well cooked, fruits and vegetables.
   2. Finely chopped meats - soft and tender.
   3. Yogurt.
   4. Applesauce.
   5. Cottage cheese/egg yolk
   6. Squash.
   7. Give soft fork-mashed food by spoon when demonstrates chewing patterns (8 months).

H. Feeding Problems:
   1. Rejects foods: Stop, try later. Don't force. Check consistency. One tablespoon cereal to 4-5 tablespoons liquid. Gradually thicken.
   2. Allergies.
   3. Sick child: Diet may be changed by physician.
   4. 8 months - grabs spoon.
   5. 10 months - unsuccessful attemps with spoon.
   6. 12 months - more successful but messy.
   7. 14 months - more accurate attempts.

I. Toddlers And Some Of Their Eating Habits:
   1. Sporadic; increases during growth spurts. May only have one meal a day with good appetite. Decrease in appetite.
   2. Eating on the move.
   3. Tendency to eat only what they like; encourage variety, different textures and consistencies. Offer only small amounts. Don't force.
   4. Messy at mealtimes: need to learn. Eat with family so can learn by observing.
   5. Wants what's on someone else's plate.
   6. Introduce new foods when he is hungry, followed by familiar foods.

7. Children (toddlers) energy needs are high and they have a limited capacity for food, so they need to eat every 3-4 hours. 3 meals and 2-3 healthy snacks per day help young children meet their daily nutrition needs.
8. Avoid junk snacks.

VII. REVIEW BREATHING TECHNIQUES

FIRST CLASS DELIVERY
Newborn and Parenting Skills
Class V

OBJECTIVES:

By the end of this class, attending parent(s) will be able to:

1. Describe three physical characteristics specific to newborns, including their related care.
2. Identify times when it is necessary to call the baby's doctor.
3. Describe two basic physical and/or emotional needs of a newborn.
4. List two legal procedures that must be completed before the baby leaves the hospital
5. Describe the safest sleep position.
6. Identify two types of stimulus that can be used to aid the baby in learning through its' senses.

Class Overview:

1. Characteristics of a new born and related care.
2. Communication with your newborn.
3. Parenting your new born up to three months of age.

QUESTIONS	CONTENT	ACTIVITIES

I. INTRODUCTION - THE NEWBORN:

Any questions from last week?

Did any of your friends share anything specific they wish they had know about a newborn?

What do newborns look like?

Now we will discuss the newborns characteristics, both physical and behavior patterns. This will help you recognize your baby's needs and help reduce anxiety when you bring baby home.

Many parents are unprepared for how a newborn baby really looks. Vision of a "dream child."

General Appearance:
It has been said that newly born babies are beautiful only to their parents.
- Red faced
- Oddly proportioned (head 1/4 length of body)
- Startle easily
- Look wrinkled
- Weight: 80% weight between 6 pounds 5 ounces to 9 pounds 2 ounces. Average is 7 1/2 pounds. Most lose weight after birth because they get rid of excess fluid and initial food intake is small.

Childbirth Graphics newborn slides - show as materials are presented.

5-10% of initial weight is lost, which they regain in two weeks.

Gain 1/2 - 1 ounce per day.

-Length: Average 19-21 inches.
Will grow 9-10 inches in first year.

Bones:
- Soft
- Pliable, cartilage
- Neck and legs short compared to rest of body
- Bowed legs

QUESTIONS	CONTENT	ACTIVITIES
How do you position a baby for eating, sleeping, burping?	<u>Muscles</u>: - Now well developed. - Neck muscles will support head for only a few seconds when on stomach. This will improve in about ten weeks. - Support head, neck and body when holding. - Turns head side to side when on tummy. Back to sleep. Able to breathe. - Symmetrical movement of extremities. - May keep head in same position as in utero. Frequent position change needed.	Demonstrate holding a baby using a doll. Students each have a doll to hold.
	<u>Face</u>: - May be puffy or bruised. - Bruising from forceps on cheek and jaw area - disappears in 1-2 days.	
What can newborns see?	<u>Eyes</u>: - Eyes small, deeply set. Aware of differences in light intensity and may even follow large objects, but visual activity poor. - Can't focus, is farsighted, eye movements not coordinated. - Pupils respond sluggishly to light. - Blink or squint when exposed to bright light. - Distinguish brightness rather than detail - Lids swollen from antibiotic drops, use antibiotic ointment. - Subjunctual hemorrhage - red patch or ring around cornea disappears in 2-3 weeks. - Gray or blue color. Permanent color as early as three months and as late as one year. (Need exposure to light to change color of the Iris.) - Crossed eyes due to poor muscle control. Normal for first month. - No tears; tear ducts don't work for 1-3 months. - Pupils may be constricted for three weeks. - Eyes focus 8" in front of baby. Can distinguish shape and follow bright colors at birth. - No eyelashes at birth.	

QUESTIONS	CONTENT	ACTIVITIES
How much can a newborn hear?	<u>Ears</u>: - Ear and nerve tracts mature at birth. Can hear after first cry. - Becomes more acute within several days as tubes dry out and mucous in ears disappears. - Hearing acute in fetus. - Startled by loud sudden noises. - Some weeks before birth he differentiates sounds and perceives direction they come from. - Babies adjust well to household noises. <u>Nose</u>: Flattened during delivery. - Little sense of smell until 9-10 months. Little sense of taste as it depends a lot upon smell (think of yourself with a cold). - Broad and flat with more hint of bridge. - Bent, misshapened. - Bitter substances evoke displeasure. -Sweet fluids more easily accepted than bland. - Nose breathers. - Sneeze frequently to clean nose. <u>Mouth</u>: - Sucking callouses on central portion of lips. - Gums feel rough. - Gums white in back of mouth. - Tongue is short and does not protrude much beyond gum line. - Thrush: minor fungus infection. White cheesy patches. Early treated. Call baby's doctor for prescription. - Salivary glands start working around three months (not teething). (May drool at first because they do not know how to swallow saliva.) - Large supply of sweet and sour taste buds. - Cheeks chubby appearance = sucking pads.	

Head:
- 1/4 of total length. Neck is short and seems as if head sits on shoulders.
- Circumference of head and chest are about equal until age four.
- Assymetrical - common variations in shape occur with vaginal delivery because the bones override one another to accommodate passage through the birth canal. Normally rounded in a few days.

Fontanelles:
Soft spot. Six fontanelles. (Allow for moulding and brain to grow.) Tough covering. Protects brain so don't fear washing the head.

Posterior fontanel closes by two months. Anterior fontanel closes by 8 months. Both may be observed to pulsate with heartbeat and to distend when baby cries = normal.

Caput Succedaneum:
Swelling of the soft tissue of the scalp due to pressure against the presenting part of the head during delivery.

Cephalhematoma:
Accumulation of blood between the periosteum and the bone. Clears within a few weeks or months. No Rx needed.

Skin:
- Covered with vernix. Cheesy, whitish substance. Acts as a protective lubricant.
- Lanugo (downing hair) disappears in a few weeks.
- Thin, often dry and peeling. (Use no oils or lotions.)
- Red due to high concentration of RBC's and thin layer of fat causing blood vessels to be drawn to surface of skin.
- Cyanosis: Blue color of lips, hands, feet. Immature peripheral circulation. Immature thermal control.

- Milia (White heads) on nose and chin. Sweat glands clogged and immature. Do not squeeze. Go away spontaneously in a few weeks.
- Skin soft and delicate, easily irritated (preventing diaper rash important).

Rashes:
Normal due to hormone changes. Oiling makes worse. Disappear on own.
- Mongolian spots: Bluish area (looks like bruise) in area of sacrum or buttocks. Disappears on own from weeks to four years.
- Erythema Toxicum: Look like flea bites. Occurs usually first four days but can last up to two weeks. No treatment needed.
- Mottling when exposed during bath, changing.
- Deep red when cries (increased oxygen).

Birthmarks:
Common on eyelids, forehead, and back of neck. Most disappear in 1-2 years. They blanch with pressure.
- Port wine stain (capillaries) level with surface of skin. Purple/dark red. If above nose tends to fade. Can be covered with cosmetics. Not serious.
- Stork's Beak: Pale pink spots on eyelids, back of head. Disappear by end of first year.
- Strawberry mark: Elevated. Present at birth or during first two weeks. May enlarge up to a year. Begins to be absorbed after first birthday 1/2 - 3/4 disappear by age seven.

Physiologic Jaundice:
- Disappears by two weeks.
- Yellow color to face, brow, eyes, oral mucous membranes, least seen on hands and feet.

Cause:
- Increased destruction RBC's no longer needed after birth.
- Immaturity of liver which is unable to handle the breakdown of the extra RBC. The by-product, bilirubin, causes the skin to turn yellow.
- Rx - Treated by a special light (Bili-light), eyelids covered, blood is monitored. May cause drowsiness or unwillingness to feed. Extremely high levels can be treated with a blood transfusion to prevent mental retardation.

Hair and Fingernails:
- Hair/Scalp may be covered with thick growth of fine, often dark hair which may lighten up later. Prone to lose hair after birth. Four months before permanent hair appears.

Fingernails:
- Tissue paper thin but sharp. May be quite long. May scratch face (cut when sleeping or feeding).

Chest: (12-13 inches smaller than head)
- Breast engorgement: Maternal hormones cross placenta and enter fetal circulation. Breasts enlarge in both male and female and secrete fluid resembling colostrum or milk (witches milk). Lasts several days to 4-6 weeks. Normal. Not infectious. Should not be handled except for routine bathing.
- Heart rate 90-180. Average 130. May be irregular. Transient murmurs are common and noisy.
- Lungs 30-60/minutes. Averages 40. Rapid, shallow, irregular.
- Nose breather (abdomen moves). Has periods when breathing seems to stop and is followed by several deep breaths.

Abdomen:
- Prominent due to poorly developed muscles and large abdominal organs.
- Umbilical cord bluish white. Moist and shiny. Eventually becomes blackish-brown and shrivels.

What are the do's and don'ts regarding the care of the umbilical cord?

- Starts drying in a few days; black color.
- Dries and falls off in 6-10 days. 10-17 days completely healed.
- Keep dry and clean.
- No tub bath until healed.
- Report foul smell or bleeding.
- Keep exposed to air with diaper pinned below the cord.
- Umbilical hernia usually disappears after walking (muscles strengthen). Surgery age three.
- When cord falls off may have some bloody discharge and look raw.

Genitalia:
Urinates 17-10 times a day. Good diaper care essential.

Girls:
Vaginal discharge of thick white mucous passed during first week. May be blood tinged. Caused by withdrawal of female hormones. Goes away. No treatment needed.

- Vaginal tag: Small piece of skin that falls off in few weeks, enlarged labia due to mother's hormones. Resolve spontaneously.

Boys:
- Swollen scrotum common. Disappears in few days. Hormonal influence.
- Testicles should both be descended (8th fetal month).
- Circumcision: Removal of skin from tip of penis.
  Cultural or religious observance. Routine procedure in the past is now being questioned. Infant finds it highly painful and complications may result. Many insurance companies are not paying for it. AAP states it is unnecssary surgery. Almost 50% of all newborn boys are now circumcised.

What do you expect an infant's stool to look like?

Anus:

Stools:

- Frequency varies. Five to six per day, or one every 2-3 days.
- Consistency is what is important.
- First stool - Meconium
  - black, tarry in appearance. Sticky and odorless. At birth or shortly after birth. This stool is composed of cells from intestinal tract, lanugo hairs that are swallowed along with the amniotic fluid in utero.

Transitional Stool:

- Loose, slimy, brown to green in color. Two to three days after birth.

Later Stools:

- Depends on food fed to baby.
- Bottle Fed - pale yellow, more formed, more regular, stronger odor, soft and pasty. Two to three per day. Dark green if on iron.
- Breast Fed - golden to mustard in color. One to six per day in first two months. Softer (runny). Color varies with food eaten by mother. Non-offensive odor. After two months of age baby may go 5-7 days without stool. This is normal.
- Diarrhea - green mucous stool may indicate virus or diarrhea. Check for water stains around stool.
- Constipation - hard, pebbly, rock-like. Offer H2O between meals.
- Bowel control sphincter, develops between 1-1 1/2 years.

Feet:

- Look more complete than they are. X-ray would show only one real bone in heel. Other bones now cartilage. Skin often loose and wrinkly. Position may be out of line. Pediatrician can decide if casts or braces needed. Often correct self as gets older and walking. Others require exercises/braces/casts.

II. NEUROLOGIC RESPONSES:

Oral Responses:
- Rooting: Stroking corners of the mouth, upper and lower lip results in had turning toward the stimulated side. Mouth usually opens with stimulation to the lips. Turns head toward anything that touches cheek.
- Sucking: Placing object in mouth elicits rhythmic sucking. When lips brushed, stimulates sucking.

Grasping Responses: (lasts 4-6 months)
- Palmar: Press palmar surface of hands with finger and fingers grasp around.
- Plantar: Press thumbs against ball of feet and flexion of all toes results.
- Able to hang on for a moment when lifted.

Moro Reflex: (startle response)
- Elicit by sudden movement, noise (loud). All four extremities are flung out and baby cries. Disappears by three months.

Tonic Neck Reflex: (fencing)
- Turning head to the side results in extension of the arm on the side to which the head is turned, and flexion of the opposite arm. Disappears in the first few month.

Stepping Reflex: (lasts several weeks after birth)
- Lifting the baby, allowing the soles of the feet to touch the surface of a table results in alternating stepping movements with both legs. If held so sole of foot touches table, bending and extension of leg occur, simulating walking.

Babinski Reflex: (disappears toward end of first year)
- Light stroking of the sole of foot from heal to toes results in dorsiflexion if big toe and spreading to smaller toes.

III. BEHAVIOR PATTERNS OF NEWBORNS:

Startles Easily:
- Nervous system immature

Random Movements:
- Jerks, brief and spontaneous tremors and twitching are common movements.
- Uncoordinated, not purposeful.
- Rhymic with sound/speech heard.

Sneezes and coughs frequently to clear mucous, dust from respiratory passages:

Tastes:
- Little sense of taste. Depends a lot on smell which doesn't appear until 9-10 months. May later reject food he now eats.
- Differentiation between bitter and sweet flavors is present. More neutral flavors not discernible.

Sensitive to heat and cold:
- Temperature regulation. Temperature regulating mechanism not fully developed. Avoid sudden changes in temperatures.

Hiccups: (Sudden, sharp, involuntary spasms of the diaphragm.)
- Possible cause: small amount of food being regurgitated into the esophagus.
- Not necessary to do anything, but often cease if infant is offered water or a pacifier.

QUESTIONS	CONTENT	ACTIVITIES

How many of you have watched a newborn sleep?

What did you notice?

How many hours does a newborn sleep?

Sleep:

- Lies with limbs flexed, raised and knees drawn under abdomen. Tries to resume fetal position.
- 16-20 hours/day. Will decide for self how long he will sleep. May vary day to day. As gets older can keep him awake (if you can) during day at times convenient for you so he will sleep during night and naps. Awakens 2-3 times a night for feedings. Length of time between feedings increases as he gets older.
- Ignores stimuli.
- Not a sound sleeper. Moves, makes faces and noises. Almost awakens - then goes back to sleep.
- Position: Back or side. Side rail up.
  - -can turn head
  - -will burp if hasn't
  - -if vomits will drain side of mouth
- Sleep cycle: different levels of sleep and wakeful periods.
- Sleeps to avoid pain and negative or excess stimulation, e.g. after circumcision, too many visitors.

How do you feel about your baby sucking a pacifier or his thumb?

Sucking Thumb:

-Accidental at this age. Mouth and hand used to explore many months after birth. Doesn't examine with hands. Puts in mouth and explores with tongue and lips for taste and texture.

-Infants have a need for sucking. Not always satisfied by feedings. May need pacifier or will suck thumb. If you use a pacifier and feel guilty, try holding or rocking when he does. Can throw away at 6 - 10 months when he can use his hands at other activities.

Fussy Time:

How long is it okay for baby to cry?

-Check for reasons. Can't discover any reason. Have checked for hunger, wetness, pain, position, companionship. May have to ignore (no child should be left for prolonged period of time without serious attempts to find out what is wrong and correct it). If content when picked up but you are busy, play with him

QUESTIONS	CONTENT	ACTIVITIES
	awhile - then try to leave him in room where he can see you. Use stroller, swing, music (toy, radio), back pack (front model). If you feel you are losing control, place baby in safe spot, leave room until calm again. If in control, may find that while holding infant seems to do no good, gives you a feeling of trying to comfort him. A pattern is possible at a certain time of day. Nothing pleases. May need to let baby cry it out. Five minutes of hard crying okay. 5-10-15 minutes of fussing okay. Quite common after being fed.	
How does a newborn communicate to us? How do we communicate to the newborn?	Communications: (Communication of Infant) -Cry is the first form of communication. Expression, relaxation, cooing, smiling are other forms. -The reasons why baby cries: hunger, (hand in mouth) pain, fatigue, boredom, need for position change or cuddling, bubble, wet diapers, too cold, too warm, fussy time, skin irritated. -Methods of soothing crying infant: holding, talking (tone of voice), singing, trying to meet baby's needs (diaper, feed, cuddle, etc.), humming, position change of baby, nursing. Cry has a way of saying something. Look for: intensity, length, observe baby (color, facial expression, position of baby), check your own feelings and tensions. -Each baby is different. It will take time to know your baby's personality and what he is trying to tell you. 10-15 minutes is safe period to let baby cry. **Insert Parenting in Pregnancy - "Cues and Crying"*	Lullaby tape

QUESTIONS	CONTENT	ACTIVITIES

When does a baby smile?

Playtime:

-Get to know each other through play. Learn about baby and world around him.
-In first few months since awake so little, bath and diaper changes can be a time for exercise and play.
-Make bath time father/mother/baby activity
-Stroller rides, as a family
-Spend 15 minutes a night for family play
-Play when father is home

IV. DISEASE PROTECTION AT BIRTH

Antibodies resulting from childhood diseases the mother has contracted remain circulated in her blood for an indefinite period and are transfered via placenta to the fetus in each pregnancy. As a result, the infant is born with immunity to a disease to which the mother has become immune. The duration of immunity is 3-6 months if not breastfed.

Immunity:

-(Passive Immunity) Antibodies for smallpox, mumps, diphtheria, and measles, if mother is immune, pass through placenta to infant. Last few weeks to several months. Little immunity for chickenpox, pertussis, or common cold.

V. BABY'S BASIC NEEDS - PHYSICAL AND EMOTIONAL:

How do you meet baby's basic needs?

What are some of baby's basic needs?

Needs to feel accure and loved:
-Hold for feedings: No infant feeders.
-Hold to comfort.
-Enjoy baby as human being.
-Cuddling, rocking.
-Touch.
-Say positive things every day.

QUESTIONS	CONTENT	ACTIVITIES
	-Seek out information if feeling in doubt. -Clean and dry. -Change positions. Nourishment: (details later) -May not fit into schedule convenient for family. Nutrition needs vary from infant to infant, and even day to day. Be flexible. Sleep: -16-20 hours a day. -Again, may not fit into schedule convenient for family. Heard of mothers who try to keep infant awake unrealistic amount of time during day so will sleep late in morning. Basic need of infant for sleep. Enjoy them when rested. Warmth and Comfort: Sensory Stimulation:	
Can a newborn baby be spoiled?	-If his basic needs are met, an infant cannot be spoiled in early infancy. Spoiling does not result from his being kept comfortable, and he needs pleasant experiences in order to trust others. Frustration of Needs: -If need for food not met, may exhibit anxiety-overeating or not eating enough. -If need for love and security not met the infant may doubt own ability to influence his/her environment and become insecure in his personal world. -If infant does not receive sensory stimulation, he/she will probably not develop normally intellectually. -Infant may also need a pacifier as a means of satisfying his increased need for sucking pleasure.	

QUESTIONS	CONTENT	ACTIVITIES
What is a premature infant?	VI. PREMATURE INFANTS: Definition: -Live born infant under 37 weeks gestation (40 normal). -Not physically ready for outside world. -Under 5 1/2 pounds or less than 2500 gm. Causes: -Reasons not always clear. In 60% no obvious reason. -Multiple births. Mother doesn't always carry long enough for each to weigh over 5 1/2 pounds. (5 1/2 pound infant usually 4 weeks before EDC. -Placenta becomes detached. -Water breaks early. -Greater in mothers under age 20 and prima gravida. -Toxemia. -Smoking. -Poor nutrition. -Diabetes. -Bleeding. Improvement in survival rate: -Early prenatal care with regular appointments. -Advanced medical knowledge. -Advanced equipment and special care units. Prevention: -Consistent prenatal care. -Knowledge of what to report to physician. -Good nutrition. Special care needed by premies: -Nutrition weak, no energy for eating - I.V., hyperalimentation. -Warmth - boby temperature regulation poor-respond promptly to changes in environment. Lack of fat under skin. Avoid sudden temperature change.	Discuss: Teens are at a greater risk for perterm delivery

-Protection from infection - less protective substances from mother.
-Respiration:
    -Weak Muscles.
    -Hyaline Membrane Disease - is wetting solution in lungs causing air sacs to stick together.

Appearance:
-Skin transparent appearance, lacks subcutaneous fat, blood vessels easily seen through skin giving it a deep red, sometimes cyanotic color.
-Abundant lanugo.
-Prone to jaundice.
-Ears and nose soft - underdeveloped cartilage.
-Ears are close to head.
-Skull round.
-Fontanels large, sutures prominent.
-Finger and toenails don't reach ends of fingers and toes.
-Respirations shallow and irregular.
-Poorly developed swallow.
-Urine scanty.
-Regurgitates foods, sphineters poorly developed.
-Sluggish, awakened to feed.
-Muscular movements feeble.
-Temperature subnormal and fluctuates.
-Cry is monotonous, whining, effortless (lack of energy).

VII. LARGE BABIES:

-Ten pounds and over makes vaginal delivery more difficult.
-Look bloated, edema.
-Characteristic of diabetic mother or gestational diabetes.
-Many doctors now doing routine CTT prenatally.
-Observe for Hypoglycemia, birth injuries (delivery problems).

QUESTIONS	CONTENT	ACTIVITIES

VIII. POST MATURE BABIES:

-Over 42 weeks
-Not longer than 23 inches.
-Skin hangs loose, recent weight loss, declining placental function.
-Nails longer and scalp hair.
-Loses lanugo.
-Vernix disappears. Skin dry, cracking, peeling.
-Good head of hair.
-More alert and motor.

What do you expect of your pediatrician in the hospital?

After discharge?

IX. MEDICAL CARE OF INFANT

In Hospital:

-Physical exam in 24 hours.
-Silver Nitrate or eye drops.
-Vitamin K injection may be given.

PKU - Phenylketonuria:
-Urine test for phenyleketone bodies.
-Blood test for phenylalanine.
-One in every 10,000 births, majority blue-eyed blond.
-Due to congenital defect in phenylalanine metabolism (proten metabolism) accumulated - prevents normal brain development.
-Rx (prevent intake of natural protein foods) or restricted dietary intake of phenylalanine. Milk feedings substituted with a special formula (lofemelac).
-Recognitin of this disorder is crucial in the newborn period because brain damage can occur as early as six months of life, and dietary therapy totally ineffective after two years of age.

QUESTIONS	CONTENT	ACTIVITIES
	Bilirubin: (Physiological Jaundice) -Jaundice: may or may not occur 2-4 days postpartum. Disappears one week. Cause: destruction RBC = bilirubin (2 to 3 times greater than adult). Immature liver can't handle high bilirubin. Phototherapy used to oxidize (break down) at skin surface. New research is showing that the early breastmilk called colostrum is important in preventing jaundice. Frequent feedings (if breastfed) are critical in reducing bilirubin levels. Water supplementation will not flush bilirubin out of system. Follow-up of medical care after delivery: -Supervision of growth and develoment: -Emotional -Social -Intellectual -Physical -Protection against communicable disease. -Go over immunization schedule. -Fee at doctor. Free at OCHD. -Adult immunizations. -Breast or formula feeding. Feeding schedule in hospital: -Every 4 hours for bottle (at home may be sooner until baby gets adjusted). -On demand if breastfeeding. -If had C-section, breastfeeding as soon as possible. Birth Certificates: -Choose name. Filed with County Clerk.	Handout: Tylenol Dosage Chart OCHD Recommended Childhood Immunization Schedule Ask 1 student to pack a diaper bag for an afternoon away with baby. Bring to class to share with group next week.
X.	*See Parenting in Pregnancy - "Comfort measures"*	Ask 1 student to pack a hospital bag. Bring to class to share with group next week.
XI.	Review breathing and relaxation techniques	

Parenting in Pregnancy

...begin at the beginning

"CUES & CRYING"

Cues babies give their parents allow the postpartum reattachment of baby to their parents for physical and psychological survival. Understanding these cues can help parents know what to expect of their newborn.

PURPOSE:

To clearly show the parallels between the cues given by a mom in labor with the cues given by a crying newborn, as well as the responses necessary for both.

GOAL:

To teach parents what their newborn is capable of understanding; dispelling the myths and replacing them with enough truths to help parents cope more effectively with the frustrating and/or confusing behaviors of their child. To help parents identify "cues" in labor and postpartum that reinforce reattachment or bring the support system surrounding parents closer.

DISCUSSION:

Ask parents—

- WHY does a baby cry?
- WHAT does a baby's cry mean?
- WHEN does a baby cry?

MYTH:	TRUTH:
Crying at birth serves a child's need to control or manipulate parents/caregivers.	Crying is a babies-only form of communication at birth. It is designed to bring parents/caregivers into closer proximity in order to get survival needs met & reattach.
A parent can always comfort their baby. If a parent shakes their baby enough, he/she will know to stop crying.	Babies do not reciprocate parent interaction at birth. Even when their needs are met, babies sometimes continue to cry.
Picking up your newborn every time he/she cries will "spoil" your baby.	A baby cannot be spoiled in the first six months of life.
Every new parent will automatically know what their child's needs are through common sense.	Baby's needs are learned by parents as they grow with their child. The meaning of a cry gets clearer through time and observation.

Clarification of myths about child development and infant cognitive capabilities before birth can increase parental understanding of what to expect of their newborn child... and possibly prevent abuse.

Parenting in Pregnancy

...begin at the beginning

COMFORT MEASURES

Each child needs the reassurance that there is some way 'I can calm myself when I feel pain'—no different than a woman in labor.

PURPOSE:

To identify and parallel the discomforts and remedies that are part of pregnancy, the birthing process, and parenting.

GOAL:

To use labor as a training ground to teach parents how important, necessary, and literally life supporting comfort techniques are for newborns and their families.

DISCUSSION:

Discomforts are a part of pregnancy and starting a new family. As the mother learns different ways to comfort herself in labor, it becomes a practice ground for determining the necessary comforts the baby needs in postpartum. Just as parents learn when and where it is appropriate to use their comfort objects, it is a parent's job to teach that to their children:

Examples of comfort measures:

PARENT	BABY
■ listening to music	■ blanket
■ exercise	■ pacifier
■ reading	■ fingers

Every baby is born with a need to suck, not only for nutrition, but for comfort. Parents provide themselves as comfort objects, but also need to provide other objects as well.

Parallels:
If music is what you use for comfort, take a walkman into labor and plan on a music box, mobile, or CD player for your baby's room.

FACILITATED DISCUSSION:

As families prepare for birth by anticipating the potential pain in labor, comfort techniques become their coping mechanisms. Parents will need coping mechanisms in postpartum to comfort their infants.

What do you do to comfort yourself?

How can this technique be used in labor and again in postpartum to comfort your baby and yourselves as parents?

FIRST CLASS DELIVERY
Wrap up Session
Class VI

OBJECTIVES:

By the end of this class, the attending parent(s) will be able to:

1. List three areas of their life style that may need to be adjusted after the baby is brought home.
2. List three responsibilities of parenting.
3. List three features that need to be considered when buying clothing and linens for a newborn.
4. Identify the safety features of four pieces of equipment that can be used for the newborn.
5. List two community resources.
6. Identify three symptoms which may be encountered in the postpartum stage.
7. Explain how one method of birth control works.

CLASS OVERVIEW:

1. Family adjustments
2. Safety in the home and car.
3. Signs and symptoms of illiness.
4. Review of baby equiment needed.
5. Baby bath specifics
6. Post partum self-care
7. Community Resources

QUESTIONS	CONTENT	ACTIVITIES
	I. INTRODUCTION: Tonight we are going to talk about the care of your baby and early parenting. While some mothers/fathers immediately assume the role of parenthood with pleasure and ease, others take time to adjust.	
When do you think adjusting to parenthood occurs? a. Right away? b. Never occurs? c. Takes some time?	II. FAMILY ADJUSTMENT: Adjusting to being parents will take some time and at moments may seem to be an overwhelming tasks: **Also see Parenting in Pregnancy: Creating your home environment*	Discuss questions.
What do you think will be the hardest adjustment to parenting?	Meal Time: (May be interrupted or postponed.) - Can try to make meal earlier in day. - Use Crockpot. - Make double portion and freeze half for later. - Leftovers become more acceptable.	Discuss who is responsible for the baby? What are some issues unique to a single parent who lives with their parents?
	Sleep: (Nap when baby naps.) - Take turns getting up for night feedings. - Take turns on weekends to let one parent sleep in. - Don't be afraid to bring baby into bed with you.	
	Housekeeping: - Re-establish priorities. When you have an infant to care for, you cannot be expected to keep a spotless house.	
What do you look for in a babysitter?	Social Life: - Entertain more at home. - Have a potential sitter help out when infant arrives to learn about your baby and ease your concerns. - Look for activities that can be done as a family, and for places that welcome small children.	
	Sexual Patterns: - Biological urge has been repressed for some time. Doctor will usually recommend you wait until after six week checkup.	After birthcontrol has been started.

QUESTIONS	CONTENT	ACTIVITIES
	- Child may interrupt lovemaking; may have to alter previous patterns to enjoy. - Birth Control: Before baby arrives you need to decide if/when you want another child, and take measures to prevent unplanned pregnancy. Sibling Adjustment: - First child no longer center of attention. - Must suddenly learn to share parent. - Include in infant care. - Let them know they are still special, and spend time every day with them alone.	
	III. Having a child means you are totally responsible for another human being. While you may not be perfectly performing all the tasks required of you, you learn through caring and love you give. Remember.... your baby has never had a mom before!	Ask each group member to give a word ending in "ing" that describes parenting to you, i.e. loving, sharing, teaching, caring.
What are some of the responsibilities of parents? What are some of the danger spots in your house today?	PARENTHOOD RESPONSIBILITIES: Some of the words you have shared reflect parenthood responsibilities. Feeding: (Discussed in an earlier class.) Prevention of accidents: Important to think about. Watch for the unexpected.. but the possible. - What to look for in toys: -Sharp edges -Mouthsize -Secure Parts -Baby Proof House: Review as baby grows:	Discuss Guide to Poison Prevention Poison Control

QUESTIONS	CONTENT	ACTIVITIES
	-Electric Outlet Covers -Electric Cords - Not Hanging -Gates, Safety Locks -Poison Prevention: Plants, Cleaning Supplies, Fans	
	Treatment of Infection:	
What questions do doctors ask when you call? How do you take a baby's temperature?	Sick Baby: -Fever. Explain how taken, Axillary. -How long fever present. -Vomiting/Diarrhea. -Personality, Appetite -Rash - area, color, raised or flat, size, onset. -Communicable Disease and Immunizations: -Clinics / CHC / etc.	Review Immunization Schedule
	Health Care Techniques: -Vitamins or medications: Prior to bath, squirt into cheek.	
What do you think will be your biggest challenge of being a parent? What do you think you will enjoy the most? What will bother you the most?	Education: (Stimulate developing senses.) Playing is learning. Through play, parents stimulate a child to achieve new developmental milestones. Look upon playtime as an educational time as well as a moment of closeness. General Instructions: -Play with your child. -Show him how to use toys. -Show interest in his accomplishments and praise him. -Encourage him to complete tasks he initiates. -Make certain toys and expectations are age appropriate for your child's developmental stage. By being parents you are always teaching in areas of accident prevention, training, disciplining and good food habits.	

QUESTIONS	CONTENT	ACTIVITIES
	IV. BABY EQUIPMENT:	
	Let's look at what you really need to have before the baby comes home. Be sure to consider safety.	Handout:
Where can a newborn safely and comfortably sleep?	Place to Sleep: -Bassinet - first 3-4 months or less; can be moved around house.	Baby Needs Check List
What should you look for in a crib?	-Crib - now federally regulated for safety (not quality). Styles prior to 1980 may not be safe. Non-toxic paint - sturdy. -Bars less than 2 3/8" apart. One thousand deaths per year. Body goes between bars, head won't. -Mattress positions - in lowest position there must be 26" from top of mattress to top of bar. Should fit bed snugly. -Side Rails - requires two step lowering, i.e. lift and kick. (Baby rolls over first 3 months so rails are needed.)	
When will a child outgrow a crib?	-Other suggestions: -Child will outgrow crib in 18-24 months. -As soon as baby can pull to stand, take toys, bumper pads, mobile out of crib so they can't climb on them. -No more than two fingers between mattress and crib side. -Check after assembly for rough spots.	
What are some things you should look for in a mattress?	-Mattress - coil count is important up to about 425 coils. After this wire gauge will be too small. Eighty-eight coils - considered a good mattress.	
Does baby need a pillow?	-No pillows: bad for posture, possible suffocation. Think back to baby's ability to move and head control. -Many people find having their baby sleep with them is a rewarding and acceptable alternative. Makes night nursings easier. Helps to have Queen or King bed, or attach crib to side of parents bed.	

QUESTIONS	CONTENT	ACTIVITIES
What linens will you need?	Linens: 4-6 crib sheets - knit sheets are warmer 4-6 lap pads 4-6 receiving blankets - square are best 2-3 quilts or crib blankets 3-4 towels and washcloths	
What other equipment do you feel is basic?	Other Equipment: -Car Safety Restraint: law requires all children from birth to one year be in car seat. Must use from 1-4 years if in front seat, may use seat belt if riding in back. -Auto accidents kill more children per year than all illnesses combined. Experts feel this is because car seats are misused. -All seats have directions for use. If used seat, be sure to get directions.	
Where is the safest place for an infant in your car?	-Types: *Infant Only - 6-22 pounds. All brands are rear facing. This prevents whiplash or strangulation. Use in front or back seat. Center of back seat is best. *Infant/Toddler Shield System: use up to four years, adjustable straps, less room for growth. Children don't like shield blocking their view. *Toddler Seat - booster with abdomen shield. Easy to use. More protection than lap belt. *Never carry baby in your arms in the car. Mom's body becomes a battering ram. *Pregnant women should wear seats placed across hips. Call doctor if in an accident.	Pamphlet: Child Car Safety Fact Book
What goes into a diaper bag?	-Diaper Bag/Large Purse. -Stroller and/or Buggy. -Some strollers convert - fixed or swivel wheels, canopy, easy to fold up, foot uspport. -Back and Front Pack: good for colicky baby. Good for bonding. Stimulates being in womb. Need head support 4-5 months for back pack - try before purchasing.	As a class, go through diaper bag student packed. Anything forgotten?

QUESTIONS	CONTENT	ACTIVITIES
What do you look for in a high chair?	-High Chair - Safety is a priority. -Tipping: Check weight. Wide base for support. If placed too close to table, child can push backward off table. Dog can knock over. Use safety strap. -Look For: Wide legs with front and back braces. Secure belting system - harness type, crotch strap. Trays that can't be knocked off and can be adequate tray size. -High chairs should be considered very dangerous, and child should be supervised at all times. Feed and then take out. -Sassy Seats - OK if used on strong table and child doesn't jump or wiggle. -Infant Seats - not car restraint - should be used only to carry infant.	
What are your feelings about using a playpen?	-Playpens - federal regulations apply. -Purpose: use at once, 10-15 minutes a day - downstairs, phone. -Size of mesh is regulated. Watch fingers. Small weave. -Slats on wood: regulations same as crib. -Center support across the bottom. -Locks should be 2 step and pinch proof, and lock tightly. No sharp edges. -Cradle, portable swing, doorway exerciser - musical - may bump door jam. -Walker - supervise closely. Buy only most recent model, non-moveable. Old models tip easily and allow access to stairways and dangerous items. -Crib toys. -Rocking chair. -Changing table - safety due to falls - strap in. -Vaporizer - cool mist or warm mist - loosen secretations. -Gates.	

QUESTIONS		CONTENT	ACTIVITIES
What features do you look for in baby clothes? How many?		Clothes: -General features: simple design, easy to wash and remove stains, no iron, easy to pull over head, snaps at the crotch are mandatory. 100% cotton most "breathable." Fire resistant. -Amounts depend on personal taste, budget, and available laundry facilities. Don't buy lots of newborn size. Ask for a variety of sizes. -Washing: wash all clothes before using. Don't bleach. Double rinse. Wash baby's clothes together. Avoid detergents as phosphates irritate. Use soap: Ivory/Dreft.	
How many diapers will use in a week?		Diapers: -Amount needed: 3-4 dozen for diapering, if washed at home. One dozen for burping. Average: 84 per week. -Diaper liners may help use fewer diapers. -Diaper pins (safety locks). Six sets. Always close pins. -Types: Paper. Cloth, prefolded. Cloth, regular. Diaper service. -Washing - presoak in diaper pail. Hot water, mild soap, double rinse. -No fabric softener - decreases absorbency. -Bleach only when necessary, and wash after to remove bleach. -Dispose of paper diapers - plastic bags to throw into.	Compare pros and current costs of each type.
		BREAK **(Hand out evaluation forms during break)**	
When is the best time to bathe a baby?	V.	Time of Bath -Try to give bath the same time each day when you will be free from interruption. This will be an individual decision, but the time should be a consistent time in your daily routine. -Not right after feeding. Wait until food has settled. Don't expect to delay a feeding either. -Will make baby sleepy and relaxed. Great evening activity for mom or dad.	

QUESTIONS	CONTENT	ACTIVITIES
Where do you plan to bathe your baby?	Place: Should be free from drafts, and a comfortable temperature. -Kitchen/bathroom/dressing table: where it is convenient for you and where there is enough room for necessary equipment. -Source of water location is a consideration.	Demonstrate using baby doll and plastic tub. Student actually does bath.
What will you need close at hand before you bathe your baby?	Equipment: Set up everything you will need before you get the baby. -Tub/sink/water. -Towel and washcloth, and table pad. -Tray with cotton, alcohol, pins, soap, shampoo, and other skin care products prefer. -Clean clothes. -Comb or brush.	
	Sponge Bath: Sponge bathe until cord is off or baby is ready for tub. This is to prevent soaking of the umbilical cord.	
What temperature should the bath water be for the baby? How do you test it?	Tub Bath: -Test water with your elbow. Should be lukewarm - about 100 F. -Before undressing baby, wash head and face. -Eyes: using a cotton ball with clear water, wash from the inside of the eye to the outer corner. Observe for redness or discharge. -Ears: wash with a cotton ball and water. No Q-Tips. Baby jerks fast. -Nose: inspect, clean with rolled cotton. -Face: with water and wash cloth - pat dry. -Do hair and scalp after the body due to the rapid heat loss from the top of the head. -Undress baby: Baby may not like being undressed and may cry. Good time to give vitamins. Clean buttocks if dirty.	

-Wash Body:
-Soap baby completely with hands or cloth. Pay attention to creases.
-Put gently into water (startle reflex). Wash and rinse with washcloth "mitt." (Show how to hold baby safely, front and back). Take baby out of tub.
-Wrap baby in towel and pat dry.
-Clean genital region:

Girl: Push aside folds of vulva; use clean cloth. Always wash front to back. Be gentle.

Boy: If circumcised, clean with cotton when healed. Apply Vaseline gauze as directed by doctor or hospital nurse. If uncircumcised, DO NOT retract foreskin forcefully. Simply wash penis like rest of body. Foreskin retraction is not necessary until the child is able to do it easily himself, sometimes as late as puberty.

Wash Hair and Scalp:
-Wash last due to heat loss.
-Wash 2-3 times per week.
-Wash with your hand and a small amount of shampoo. Don't be afraid of the soft fontanels. Rinse thoroughly over the tub (hold football fashion). Watch for cradle cap. (Crust commonly appears around six weeks.) If forms, rub with mineral oil and wash thoroughly in a few hours.

Skin Care:
-Sensitive to common additives to baby products - perfumes, cornstarch.
-Navel: alcohol swab or rubbing alcohol on cotton until dry and healed.

How can you tell your baby is dressed comfortably for the weather?

Dress Baby:
-Select soft, comfortable and easy get on clothes. Dress appropriate for the weather. What are you comfortable wearing?
-Diaper: Girls: Thickness in front if she will sleep on stomach.
Thickness in back if she will sleep on back.
Boys: Thickness in front.

-Wrap in a receiving blanket for easy handling.

VI. POSTPARTUM (STAGE 4) AND SELF CARE

A. "Pospartum" is the period followig the birth of your baby until your reproductive system returns to its normal state. - Approximately six weeks. But do not expect your body to be totally back to normal in a month. It takes a number of months!

B. Be sure to ask questions in the hospital so that you understand all instructions given to you.

C. Shower when you are allowed! Warm water will relax you and feel good on your perineum

D. Frequently change peri-pad. Wipe front to back.

E. Lochia:
The discharge ("bleeding") that occurs after delivery and for several weeks. Bright red (lochia rubra) for the first three days or so. You may pass some clots. The color of the discharge becomes pink to brown (Lochia serosa) 3rd to 14th day or so. The amount will decrease as time goes on. Lochia alba-whitish discharge - at about two or three weeks. The lochia may turn bright red again if you over exert yourself. Call doctor/nurse midwife if it continues.

QUESTIONS	CONTENT	ACTIVITIES

F. Increased Urination:
Is common for two to four days after delivery. Body rids itself of excess fluid. If you have difficulty urinating, you may be catheterized.

G. Diaphoresis - (Sweating)
Another way body rids itself of fluids.

H. Constipation:
Drink lots of fluids (Prune juice!), take stool softener, eat high fiber foods, walk!

I. Episiotomy:
May be itchy or tender/painful for several weeks. Tub and/or sitz baths, shower, Tucks, medicated ointment and sprays will be ordered by your doctor. Keep perineum clean (use spray bottle of warm water on perineum every time you go the bathroom). Doing Kegel Exercises can help episiotomy to heal.

J. Breasts:
Secrete colostrum (yellow fluid - 1st milk, very good for baby!) for several days after delivery. Around day 3, more "mature" milk comes in and breasts become larger, firm. If you are breast feeding, breastfeed frequently (every 1-3 hours!). Warm or cold compresses to breasts can ease discomfort.

Have any of you ever heard of the "Baby Blues"?

K. Postpartum "Blues":
1. Not unusual for women to feel depressed at times. Many hormone changes, fatigue, life changes! May feel overwhelmed and stressed about baby's care. It takes time to adjust to new role.

2. If you feel very depressed and fatigued, follow up with physician. Postpartum depression is treatable with antidepressant medications, psychological support. GET HELP! This is important!

L. Loss of Weight:
1. Approximately 12 pounds loss after delivery.
2. Approximately 5 pound fluid loss in first weeks postpartum.
3. It takes time for additonal weight to be lost! (a number of months). Eat healthfully and give yourself time. Not a time to diet if you are breastfeeding!

M. Rest:
Relax and sleep WHENEVER POSSIBLE. Sleep when your baby sleeps. You will be tired. The more you rest, the more quickly you will feel better and get back to normal".

N. Exercises:
Nothing strenuous should be done until after your red bleeding has stopped and after your postpartum checkup (4-6 weeks PP). Do not go up and down stairs more than once or twice a day. Wait 4 weeks before doing regular housework.

O. Postpartum Exam:
This is important! Done at 4 to 6 weeks. Doctor/APN checks size and position of uterus. Your weight and blood pressure will be checked. At this exam, birth control methods will be discussed, obtained.

P. Return of Ovulation and Menstruation:
Varies. If not breastfeeding, usually 6-8 weeks. If breast feeding, it may take a number of months. Still possible to get p[illegible]nt-need to use birth control method.

QUESTIONS	CONTENT	ACTIVITIES

Q. Sexual Intercourse:
Your doctor/APN will advise you. Most suggest waiting until after your check-up. May need lubrication (K-Y jelly).

R. Signs of Illness Which Should be Reported to Doctor:
1. Bright red vaginal bleeding returning or large amount.
2. Bad smelling vaginal discharge.
3. Fever and chills.
4. Tenderness or pain in legs.
5. Difficulty in breathing, or chest pains.
6. Extreme tiredness or depression.
7. Severe abdominal pain.
8. Bloody or cloudy urine or burning when you urinate.
9. Cracked or bleeding nipples, very hard and red breast.

VII. BIRTH CONTROL METHODS

-Discuss various methods of birth control.

Pamphlet:

"No" and Other Methods of Birth Control

VIII. COMMUNITY RESOURCES

A) Lakeshore Pregnancy Center, 8th and Pine
Phone # -
What They Do.

1) Maternity Clothes
2) Baby Equipment
3) Pregnancy Testing

Video:

Depo Provera

Pamphlet:

Helping Parents of Infants and Young Children

QUESTIONS	CONTENT	ACTIVITIES

B) Ottawa County Health Department 4 offices

Whats Available

1) Immunization
2) Well Baby Check-ups
3) Family Planning
4) STD Testing and Treatment
5) Marriage Counseling
6) Adult Health Screening
7) Maternal Support Services

Ask a representative from one of these community resources to come to this meeting to introduce their resource.

Tour Health Department facility.

C) WIC
D) Good Samaritan
E) Community Action House
F) Salvation Army
G) Bethany Services
H) Catholic Social Services
I) Child and Family Services
J) Community Mental Health
K) Holland City Mission
L) Parenting Plus
M) Center for Women in Transition
N) COPE
O) Parent Support Group introduced and encouraged for students. More in depth child care concerns will be shared as well as group discussions on pertinent issues.

IX. *Parenting In Pregnancy: "Change, Scared"*

X. Certificate of Graduation - review breathing and relaxation techniques

**Parenting and Pregnancy - "Contractions and Control"*

Parenting in Pregnancy

...begin at the beginning

CREATING YOUR HOME ENVIRONMENT

From the dimly lit, muffled, warm security of the uterus to the bright, loud world can be a shocking experience. How parents prepare their home for their newborn is significant to the whole family.

PURPOSE:
To understand the relationship between the home environment and the physical and emotional health of the family.

GOAL:
To encourage parents to look at their home environment with the same critical eye as they view their birthing center.

DISCUSSION:
Discuss what parents look for in a birthing center and how they should incorporate those attributes into their home environment.

RULES AND REGULATIONS

THE BIRTHING CENTER
Know when it opens and closes, the visiting hours, who can observe the birth, who is allowed to take and hold the baby, etc.

THE HOME ENVIRONMENT
Decide when to open up your home for friends, relatives, and neighbors, established amounts of time for visits must be set.

SAFETY AND SECURITY

THE BIRTHING CENTER
Know how sterile the room is kept and the precautions taken to clearly protect and reassure parents of their family's security.

THE HOME ENVIRONMENT
Create a safe environment so baby's brand new immune system is protected. Parents secure their infant's safety by eliminating potential sources of harm.

CLARIFICATION OF ROLES

THE BIRTHING CENTER
The doctors, nurses, and hospital staff all have specific roles during your hospital stay.

THE HOME ENVIRONMENT
Specify roles mom, dad, relatives and friends will take, considering what needs to be done and who will do it. (i.e. cleaning, feeding, laundry, etc.) Discuss how parents will take turns to support each other's sleep deprivation.

Parents: Ask at least as many questions of yourselves about your home environment that you ask of the birth center. Each precaution parents take to be reassured about the capability of their birthing center should be mirrored at home to strengthen the security of the family.

Parenting in Pregnancy

...begin at the beginning

"SCARED"

Mothers, Fathers, babies... the family as a whole... is "scared" of becoming. It is this fear that helps them recognize the need to prepare—for labor, delivery and parenting.

PURPOSE:
To recognize and identify the fears of childbirth and parenting, noting the parallels between prenatal and postpartum fears and solutions.

GOAL:
To give parents specific techniques for overcoming these fears using the acronym "SCARED."

DISCUSSION:
Prenatal—

- **S** Support *(Allows others to share the joys and burdens of the developing fetus)*
- **C** Comfort *(Tools provided for relief; a way to ease the pain in pregnancy)*
- **A** Attachment *(Physical—for survival)*
- **R** Relaxation *(To lessen tension and reduce stress of pain)*
- **E** Education *(Provides facts about the non-exact science of birth and insights about labor, delivery, and postpartum)*
- **D** Discipline *(Re-learn how to react to pain through repetition of new coping techniques)*

Postpartum—

- **S** Support *(By identifying and expressing needs of family)*
- **C** Comfort *(For the newborn through sucking—their mouth is how they discover their world)*
- **A** (Re) Attachment *(Through touching, mothers & fathers bond physically and psychologically)*
- **R** Relaxation *(Using techniques learned in CBE allow for relief from sleep deprivation)*
- **E** Education *(Answers provide solutions to the problems of parenting; the more parents know, the more techniques they have to choose from)*
- **D** Discipline *(Allows parents and babies to recognize their capabilities together; process begins at six months when a baby can learn behaviors and is capable of change.)*

Fear gives parents the cues necessary to pay attention to the need to prepare. Beginning to problem solve in pregnancy by labeling your family's needs and finding solutions is the first logical step to developing a healthy family.

Parenting in Pregnancy

...begin at the beginning

CONTRACTIONS & CONTROL

Contractions can be as unique as children. Sometimes a mom or coach is taken off-guard by a difficult contraction and does not know how to handle it... just as children can sometimes be difficult to control and their behavior catches parents by surprise!

PURPOSE:

To demonstrate the similarities between the hard work and feelings of loss of control experienced in labor with those same feelings experienced as a parent.

GOAL:

To teach parents that techniques used to deal with contractions can be used in many parenting situations.

DISCUSSION:

Say—"Let's practice handling the contraction and handling your new role as parents. You will be better prepared to handle both delivery and becoming a family."

Contraction begins...
Take a big, deep breath to give plenty of oxygen to the baby, signal to your coach, and prepare yourself to handle the unknown pain of labor.

Parenting begins...
Take a big, deep breath to calm yourself, signal your partner for patience, and prepare yourself for handling the unknown challenges of parenting.

Contraction builds...
Distraction techniques are needed for coping with the pain. Soon your contraction, like a wave, will break and begin to fade away.

In parenting...
As your child grows, coping techniques are needed to deal with the changes in development, but each stage eventually fades away and gives rise to the next stage.

Contraction ends...
You are that much closer to delivery and the beginning of your new family. As the contractions and the pregnancy ends, parenting begins!

Parenting never ends!
You can look forward to a lifetime of challenges and rewards.

No two families, like no two contractions, are exactly the same. Each contraction... each child, is completely unique.

First Class Delivery
Pre and Post Questionnaire

1. What is the cervix?
   a. an opening to the uterus
   b. the cut that the doctor makes to allow the baby to be born
   c. fluid that surrounds the baby
   d. the way the baby eats inside the mom

2. It is OK to drink 1 beer a week during your pregnancy. T F

3. Fetal monitoring would measure:
   a. number of hours until delivery
   b. mother's heart rate
   c. size of babies head
   d. spacing and timing of contractions

4. How can your coach help you decrease the pain during your labor?
   a. let the nurse know when you need something
   b. do not criticize her
   c. help you time contractions
   d. all of the above

5. What is a sign of labor?
   a. vomiting
   b. contractions that are irregular and short
   c. pressure in the pelvic area
   d. contractions that are regular and closer together

6. Why is a caesarean section done?
   a. abnormal position of baby
   b. fetal distress
   c. baby's head is too large
   d. ineffective contractions
   e. all of the above

7. How often do you feed a newborn?
   a. whenever the baby is hungry
   b. every 4 hours
   c. only during the day
   d. when you eat your meals

8. How do you stop your baby from crying?
   a. spanking
   b. cuddling your baby
   c. holding the baby while taking a ride in the car
   d. play loud music

9. What is a normal characteristic of a newborn?
   a. having a cone shaped head after birth
   b. enlarged genitals
   c. yellow skin
   d. a and b only

10. It is OK to have sex without using birth control during the 1st six weeks after delivery. T F

11. When is it not safe to have sex during your pregnancy?
   a. the last three months
   b. after the water breaks
   c. all during pregnancy
   d. if there is a risk your partner has an STD
   e. b and d

12. What services are provided at the Ottawa County Health Department for you and your baby?
   a. birth control supplies
   b. well baby check ups
   c. free immunizations
   d. parenting education
   e. all of the above

13. I am most fearful of_____ in this pregnancy and on a scale of 1-10 (1 means afraid; 10 means most afraid) I would rate my level of fear at a _____.

Post Survey Questions

Please answer these questions to help us plan for the next prenatal class. We appreciate your ideas to help us improve the classes. Thank you!

1. I was able to attend how many prenatal class sessions.
(circle the correct letter)

a. all **d. 3**
b. 5 **e. 2**
c. 4 **f. 1**

2. If you did not attend all the classes, why didn't you?_____
Did you need a coach? Yes_____No_____

3. Was the location of the class convenient for you? Yes____No____

4. Name one of the community resources you heard about in the class which you hope to use in the near future_____.

5.The prenatal education class helped prepare me for labor and delivery
Yes_____ No_____
If your answer is "no" explain_____

6. I was less fearful of labor and delivery after taking the prenatal class.
Yes_____ No_____

7. The thing that helped me most from the class was_____.

9. I wish I could have learned more in the class about_____.

10. One suggestion I have to improve the prenatal class would be_____
_____.