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A Review of the Literature Related to Pregnant Adolescents and Their Use of Doulas as Childbirth Support

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CHAPTER I

INTRODUCTION

Support, physical and emotional, during the childbirth process is something that is easy for many women to take for granted. For the many adolescents who are pregnant, though, support during this phase of life is a critical necessity that is not always available. Doulas, professional labor support, are a group of individuals who may help these teens during the life-changing experience of childbirth.

For most adolescent females an unplanned pregnancy is a very traumatic and personal experience. It can change a young girl's life in many ways. These pregnancies interrupt normal developmental processes such as physical growth, mental maturation, and socialization patterns. Early pregnancy has the potential to keep an adolescent female from very important educational and employment opportunities. Serious public health problems are also evident; premature birth and high infant mortality are higher in adolescent females, than older mothers. Along with health risks, the adolescent mother is often ill-equipped to meet the responsibilities of caring for an infant and may become dependent on public funds. It is a societal taboo for one to become pregnant before one is married. Because social norms and values are broken, many of these pregnant teens find they are with little support from the beginning of their pregnancy to the time they bring their infant home (Paik, 1992).

With respect to the economic impact of adolescent pregnancy, the Center for Disease Control (CDC) reported that from 1985 to 1990 the public costs for families started by teen mothers was $120.3 billion. This was for Aid to Families with Dependant Children (AFDC), Medicaid and food stamps. This did not include the Women Infant

Children Program (WIC), job training, housing, special education programs, day-care and foster-care. (Medora & von der Hellen, 1997).

Certain intervention strategies and a supportive environment can improve the long-term success of these women and their children. Studies show that when pregnant teens receive prenatal, obstetric and social services and attend special school programs for pregnant and parenting adolescents, they are more likely to have better birth outcomes (Langfield, Pasley, Wolchik & Sandler, 1997). Support of the woman is very important, especially in adolescents. In a number of studies, it has been shown that continuous empathetic support in labor resulted in many benefits in birth outcomes. These benefits include shorter labor, significantly less medication and epidural analgesia, few Apgar scores less than seven, and fewer operative deliveries (Treffers, Olukoya, Ferguson & Liljestrand, 2001).

A cross-sectional study conducted by Blackhurst, Gailey, Bagwell, Dillow, McCuen, Warner & Crane (1996) compared pregnant teens that did and did not participate in a teen pregnancy program. The program consisted of prenatal classes, nutrition counseling and social worker/case manager evaluation. The infants whose mothers participated in the program had more favorable outcomes such as better Apgar scores, higher birth weight and a shorter length of stay in the Neonatal Intensive Care Unit (NICU). No difference was noted between the two groups of mothers with respect to type of delivery or length of stay.

Studies have been conducted to look at the outcomes of adolescent pregnancy. In a study by J.W. Finkelstein, J.A. Finkelstein, Christie, Roden and Shelton (1982), the medical charts of 14-,15- and 16-year olds were reviewed and compared to one hundred

randomly selected women aged 20-30 years old. Forceps were used more frequently and more caesarian sections were required for the adolescents when compared to the 20-30 year olds. The etiology of these complications is unknown in this study. Young mothers may be less likely to have the education and support from others to have been educated about their bodies and relax enough to deliver without complications than older mothers. According to Treffers, et al.(2001), various social and behavioral factors may have a negative influence on pregnancy outcomes. Also, some adolescents are socially deprived or may have experienced physical abuse. Some use or abuse various harmful substances and may receive less than optimal prenatal care during pregnancy.

When looking at childbirth practices in general, the United States has two trends in childbirth practices that are moving in opposite directions. One trend is the growing number of hospitals providing home-like accommodations, including Jacuzzis and microwaves, plus more than 140 out-of-hospital birth centers. The other trend is high-tech childbirth during which IV's, induction, and cesarean sections are used along with a growing emphasis on tests and procedures (Korte & Scaer, 1996).

One hundred years ago, care to the birthing mother was given by another woman in the home. In the late 1960's, family practice as a specialty was born due to the growth of technology in obstetrics and neonatology. Now birthing mothers are starting to see more comfortable home-like facilities with the "as-needed" safety and comfort procedures at hand, such as epidural, c-sections and other medical interventions (Larimore & Reynolds, 1994).

When looking at these two trends, it is important to keep in mind how they can affect the mother, physically and emotionally. One way to focus on those outcomes is to

look at the labor support system. The fact that many pregnant adolescents find themselves alone during this most intense time makes labor support a key factor to consider. The labor support system can include the doctor, nurse, midwife, father of the child, friends, family, traditional birth attendants, or doulas.

A doula is a woman who provides continuous physical and emotional support through pregnancy and childbirth. Scott (1999) states that the use of doulas is rising in today's childbirth practices in the U.S. They have been found to be extremely helpful for the pregnant adolescent. According to Scott (1999), "The continuous presence of a doula during labor and delivery appears to have a greater beneficial effect for the mother than support provided on an intermittent basis". Doulas have been found to reduce the use of unnecessary obstetric interventions and to increase self-esteem, feelings of control, and participation (Scott, 1999).

The potential for emotional and physical benefits or harm is present at every birth. Caregivers are encouraged to realize that they are looked up to during this vulnerable period and contribute directly to the mother's long-term satisfaction and self-esteem. In addition to a safe birth outcome, the goal of a positive experience is encouraged, which guides the supporters care (Simpkin, 1991).

Significance of the Study

According to Bachman (1993), "Childbirth is now lonelier and more psychologically stressful than in the past," especially for adolescents. Today, nurses have found themselves farther from the bedside because of the increase in technology and the way shifts are staffed. Over-crowded maternity clinics and short hospital stays have given nurses little or no time to provide health education and information to the high-risk

population of pregnant teens (Bachman, 1993). The caring and nurturing touch of nurses can often be overshadowed by these changes (Herrick & Perez, 1998). Perhaps, because of the nurse's busy schedule, women rate a partner's presence as extremely important.

Kennel states that supportive female companions during childbirth can reduce the need for a cesarean section, reduce obstetric interventions, promote shorter labors and cause fewer perinatal problems in the fetuses and neonates (Kennell, 1991). This is important because of the potential financial, physical, and emotional consequences. Any new information regarding the support system will add to the baseline of information already established for pregnant adolescents. The adolescent is able to make healthier decisions for herself and for her unborn child regarding the laboring process when she is nurtured by an adequate support system.

This literature review will examine the etiology of adolescent pregnancy and the labor support measures that adolescent use, specifically doulas.

Delimitations

This literature review was delimited to the following:

1. English language literature published from 1979 to present.
2. Literature identified by Luther College's reference database.
3. Literature identified by computer and database search engines Medline, PubMed, PsychMed, Yahoo, Excite, Google, and Netscape.

Limitations

1. Few studies have been conducted to address the use of doulas by the adolescent population.

2. Since the use of doulas is a relatively new concept, few studies have been conducted regarding the use of doulas.
3. Most research during childbirth involved midwifes, which was generalized to female support systems. Female support systems include doulas.

Definition of Terms

1. Adolescence: stage of maturation between childhood and adulthood. The term denotes the time period from the beginning of puberty to maturity; it usually starts at about age 14 in males and age 12 in females and terminates legally at the age of majority (Merriam-Webster's Collegiate Dictionary, 1993).
2. Apgar score: five tests that are carried out on the newborn within a minute after birth. These tests include pulse/heart rate, breathing, movements, skin color and reflexes. The higher the score, the better the health of the baby. This test is named after Dr. Virginia Apgar, who devised the scale.
3. Cesarean section: a birth in which an incision is made through the abdominal wall and uterus to deliver the baby. It is thought that if the mother is able to relax and focus on the task at hand that she will be able to deliver vaginally instead of using surgical procedures (Kennel, 1999). Some physical reasons may necessitate the need for a cesarean section.
4. Doula: comes from the Greek word for a female slave or servant in an ancient Greek household. This woman probably helped the lady of the house through her childbearing. The word has come to refer to a woman experienced in childbirth who provides continuous physical, emotional, and informational support to the mother before, during, and just after childbirth (Kennell, 1999).

5. Episiotomy: a surgical incision in the perineum to enlarge the vaginal opening. It is thought that if the mother is able to relax and control her pushing efforts then the likelihood of having an episiotomy is unlikely (Kennell, 1999).
6. Nurse-midwife: a support person that usually stays with the mother during the entire labor, provides clinical assessments, and delivers the baby.
7. Primigravida : a woman who is pregnant for the first time. A multigravida is a woman who has had multiple pregnancies.
8. Traditional birthing attendant: a constant birthing companion who assists the women by encouraging her, supporting her in moving and adjusting her body position, and touching and massaging her. TBAs have been through labor themselves and typically several others.

CHAPTER II

LITERATURE REVIEW

History of Childbirth Support

Labor support is centuries old. In the past, it was common for a woman in labor to be supported by other women. The practice is ancient and widespread (Kennell, 1999; Kennell, 1997). Many other cultures still use this form of support for childbearing women.

The word *obstetric* originally meant, "to stand by or to stand with." Until the last 100 years, this was usually given by a woman to a woman. Today, obstetrics leads to visions of medical interventions such as needles, medications and tests. The word *midwife* means, "the woman or the woman beside." Historically, these birth attendants used their therapeutic instruments of compassion, experience, patience, listening and tradition to care for the laboring woman (Larimore, 1994). Many childbirth practices that had evolved over the centuries have been lost or altered, including birth position, obstetric medication and companionships during labor (Kennell, 1997).

In the early 1900's in the U.S., birth began to move from the home into the hospital and the use of midwives declined as the use of physicians rose. At this time approximately 50 percent of all babies in the U.S. were born into the hands of a midwife. Many midwives were either immigrants from Europe or Mexico, or southern-born African Americans. By 1930, the number of midwife-attended births decreased to 15 percent of the total. Some reasons for this decline included decreased immigration, the Americanization of immigrant women and their daughters, and the campaign to eliminate midwives waged by physicians and public health reformers. By 1979, ninety-nine

percent of births occurred in the hospital. As births moved to the hospital, the support system that was once utilized by women was left in the waiting room (Dawley, 2003; Hodnett, Gates, Hofmeyer, Sakala, 2003).

In the United States between the 1940's and 1960's poor maternal and infant health outcomes were of great concern. As a result, births had moved to the hospitals. Strict rules were instituted, such as separation of the mother from the father and the mother from the infant, to prevent infection. What was once a family affair in a familiar environment became a medical procedure in a sterile environment. During World War II, many women were forced to endure their pregnancies and births alone because their partners were at war. After the war ended, women were encouraged to stay in the home and have large families where the father did not take an active role in the childbirth experience. The women's movement of the 1960's and 1970's impacted the woman's childbirth experience immensely. Many women wanted their childbirth experiences to be medically safe and emotionally meaningful. Changes within the maternity care system began to occur during this time. Besides the decrease in the dosage of medication, fathers were starting to be included during labor and birth. Later, other family members were included. By the 1990's family members as part of the pregnancy and birth experience were common place. (Zwelling, 1996).

Early in this century, labor and delivery, which had always been considered necessary, normal and a natural life event, became known as a disease or even a surgical process. As a result, maternity care evolved from a female birth attendant, home-based, and family- and community-supported tradition to a, "predominantly hospital-based, male dominated religion," according to Larimore. This means that there was a hope that

this system would improve outcomes by reducing morbidity and mortality. It is now known that the mortality reduction has not come from medical intervention alone, but also from improvements in the health of women and from improvements in the sanitary and environmental health of their communities (Larimore, 1994).

Current Childbirth Support

One hundred years of technological advancements have changed the way childbirth progresses. Many childbirth practices that once were utilized are uncommon now, either having been discarded completely or altered. Some practices that have changed include the birth position, obstetric medication and companionship during labor. A variety of medical procedures have been developed to ease the pain of the mother or to speed up the delivery process. Also, the type of support that was once present during childbirth 100 years ago are no longer used (Kennel, 1997).

In the past, it was commonplace for women to squat to deliver their babies. Recently, women have been encouraged to lie in bed for the entire labor process, slowing the descent of the baby through the birth canal. In the past, medications were rarely used. Now, medication is readily available. At one time, women had an experienced childbirth attendant at their side at all times. Today, it is rare to see the same nurse throughout a woman's labor and delivery process. Current U.S. obstetric practices use more technology throughout the progress of labor. This includes the use of electronic fetal monitoring, administration of epidurals, administering oxytocin and artificially rupturing the membranes (Kennell, 1991).

A study conducted by Campero (1998) described some current practices in Mexico that may be similar to the United States. In general, care was provided

exclusively by the doctor and nurse. It was found that 85.4 percent of births occurred in hospitals, 3.3 percent at a midwife's house, and 10 percent of births occurred at home (Campero, 1998). The fact that more births are occurring in hospitals with care only from doctors and nurses goes to show, once again, how urbanization along with growth in technology have negatively impacted the role of traditional birth attendants and companions during labor.

As stated previously, childbirth has become a lonely process, which is very stressful. Women giving birth encountered an average of 6.4 unfamiliar professionals during labor (Kennell, 1999). Nurses find themselves farther from the bedside because of technology and under-staffed shifts. The caring, nurturing touch of nurses can often be overshadowed by these changes (Herrick, 1998). According to Kitzinger, obstetricians have discovered new ways of controlling a process which, in the past, was left to nature. Some have wondered why shouldn't doctors just stand by and watch and only intervene when something goes wrong. Some doctors believe that, instead, labor should be regulated from start to finish. Kitzinger believes that some women detest the intrusion of machinery into what they feel should be a natural process and question it. Others have found comfort in knowing that labor is controlled by the obstetrician (Kitzinger, 1996). One can see how technology has changed the nature of childbirth practices. The support systems that were once in place have been pushed aside and new support systems have been established.

Support Systems

It has been found that fathers support about 80 percent of laboring women in the United States (Kennell,1999). This is not a statistical measure for adolescents. Most

examples given were of married couples or partners in their mid-twenties to mid-thirties. Fathers reported that they wanted to be present at the birth of their babies and mothers also wanted them there. However, the role of the father-to-be has not been clear and he has not been well-prepared for the strange sights, smells and sounds including the cries of women in labor. Even more stressful for the fathers, have been the changes that occurred in his partner during labor and delivery. It was found that the males left their place at their laboring partner's side when hospital personnel entered the room for any reason (Kennell, 1999). In asking fathers to be the main support, society may have created a very difficult expectation for them to meet. Kennell analyzes that, "This is like asking fathers to play in a professional football game after several lectures but without any training or practice games," (Kennell, 1999).

As mentioned before, nurses have found themselves farther from the laboring woman's side because they are struggling with technology and administration. Many nurses have entered nursing with a desire to care for people, to expand their knowledge and skills, and to prove that their nurture is important during these life-changing experiences. Nurses have struggled to give great personalized care today (Perez & Herrick, 1998). Nurses are to provide skilled labor support, but the barriers that need to be overcome have been the lack of educational preparation in labor support and lack of time. Nurses may know the medical procedures for taking care of a woman during labor, but may not know the comfort measures for the laboring woman. Then, because of the way hospital shifts are scheduled, nurses find themselves running from one woman to the next, without being able to offer continuous support to one woman.

A Traditional Birthing Attendant (TBA) is "a person (usually a woman) who assists the mother at childbirth and who initially acquired her skills delivering babies by herself or by working with other traditional birth attendants."(World Health Organization, 1979). In many cases, the TBA's work includes not only her attendance at childbirth, but the provision of the prenatal care and the provision of care to the newborn, under normal conditions. Identifying and referring high-risk patients is an increasing responsibility for the TBA. TBAs are a more familiar figure in almost every village and many urban areas of Africa, Asia and Latin America. In 1992 it was estimated that, in the developing world, between 60 and 80 percent of births are attended by TBAs. The World Health Organization has stated the need for improving the practice of these women through formal education and training. The positive aspects of care by TBAs have been to allow the women to birth at home, be a constant companion with emotional support, to provide clinical assessments along with massage therapy and is more cost effective (Keenan, 2000).

Midwives historically used their compassion, care, patience, experience, listening and tradition to help the laboring woman. Midwives teach, educate and empower women to take control of their own health care. They provide prenatal care and assist the mother to give birth. Midwives manage the birth and guard the woman and her newborn in the postpartum period. They encourage and monitor women throughout their labor with techniques to improve the labor and birth. During the last century, however, physicians changed this approach. As an increasing number of trained physicians became available, it was the physician rather than the midwife who was called to assist the laboring woman. Thus, the midwife nearly disappeared in North America and Great Britain. The

midwives who remained became primarily hospital based and controlled by physicians, who were for the most part all men (Larimore, 1994).

Today, three types of midwives are seen in practice. The first type of midwife is a Certified Nurse Midwife (CNM). This woman is trained through approved programs of the American College of Nurse Midwives, usually through a one year certificate program or a two year Master's program. A Licensed or Certified Midwife is the second type of midwifery. This woman may practice in a home or birth center setting. Her training is through a combination of formal schooling, correspondence courses, self-study and apprenticeship. This is a non-nurse entry route for midwifery. The third type of midwife is the Lay or Empirical Midwife, also known as Direct Entry Midwife. This woman is not licensed or certified. This may be because of lack of experience necessary for licensure or because she did not want to work under any type of mandated protocols or guidelines (Midwifery,www.faqs.org).

Doulas

A doula is a woman who provides integral components of physical comfort, emotional support including reassurance and perspective, and aids in providing information for informed choice to a woman labor including massage, movement, music, gently scented oils, the use of the birthing balls, squatting and hydrotherapy, and attention to the details of a birthing woman's comfort (Bianchi & Adams, 2004; Schwartz, 2002; Gilliland, 2002; Hodnett, et al., 2003). She uses her constant presence, physical touch, reassurance, explanations and guidance to facilitate a positive birth experience for the mother. These have made the laboring woman feel safer and calmer, needing less obstetric intervention (Kennell, 1991). The continuous presence of a doula during labor

and delivery appeared to have a greater beneficial effect than support provided on an intermittent basis (Berkowitz, 1999). Doulas are different than Traditional Birth Attendants and Midwives in that they focus only on the mother and her needs during the labor and delivery. Doulas help explain to the laboring woman what is happening to her body and what to expect throughout the process without conducting any medical procedures, herself (Hodnett, et al., 2003).

Gilliland (2002) explains how the doula functions with other members of the maternity care team and fits into the larger network of medical care. Doulas "help bridge the gap between the dreams and realities of this transformative life experience for mothers and families." Doulas work closely with the nursing staff at the hospitals. The roles of the nurse and the doulas differ substantially, yet they overlap and complement each other in the same measure. Most nurses have attended more labors and births than most doulas. However, doulas usually have seen more entire labors from start to finish than have most nurses (Gilliland, 2002).

The goal of the doula is to ensure that the woman feels safe and confident throughout her child laboring process. Ballen and Fulcher (2006) identify three primary models of doulas: hospital based using volunteer or paid doulas; community based program; private practice doulas. Hospital based program offers doula services to all women. Some disadvantages identified in the hospital based model include difficulty maintaining full-time doula coverage, especially if using volunteers, the continual need to recruit and train new doulas, and funding issues to continue a doula program. Hospital based doula programs are typically funded by hospital budgets and/or grants. Doulas are offered to anyone but largely attend underserved mothers including low-income women,

teenagers, women laboring alone, incarcerated women, and others with special needs (Ballen & Fulcher, 2006).

Community based programs offer care that is culturally sensitive because the doula and woman share values and language. The community based doula programs provide services to the underserved and high-risk populations, including low-income women, teens and drug users. Difficulties may include funding challenges and the doulas' lack of familiarity with the hospital and health care staff. Ann Shelp (2004) described how the establishment of The Somali Doula Program at Fairview University Medical Center in Minneapolis, Minnesota was in response to the increasing frustration of both Somali women and the hospital staff regarding cultural differences in childbirth practices. Aspects of the program included developing a glossary of both cultures' important birth-related terms and the hiring and training of Somali women to be doulas. This type of support has improved attitudes and confidence of the staff, improved the satisfaction of the birthing Somali women, reduced the usage of epidural pain relief, and reduced cesarean birth rates (Ballen & Fulcher, 2006; Shelp, 2004).

In the private practice clients develop a trusting relationship with the doula prior to birth. She is available around the clock, and the relationship may continue after the birth providing postpartum support. The doula spends many hours with the pregnant woman. The doula is on 24-hour call, attends the entire labor and follows up with postpartum attention. Private practice is available only to women who can afford to pay for this service, although some insurance companies now reimburse for private doula services (Ballen & Fulcher, 2006).

As cited by Klaus (1999) it has been found that doulas reduce cesarean section rates by fifty percent and reduce the length of labor by twenty-five percent. The use of oxytocin was lowered by forty percent along with pain medications by thirty percent. The use of forceps decreased by forty percent as well as the use of epidurals by sixty percent. The use of doulas has also been found to reduce maternal fever, days in NICU and septic work-ups (Klaus, 1999). Some long term benefits of using doulas have included improved breast feeding and increased time spent with the baby. A more positive maternal assessment of the baby's personality, competence and health was noticed. Post partum depression seemed to decrease with the use of doulas, as well. Other emotional outcomes have included increased self-esteem, feelings of control, and cooperation during labor and the delivery process (Klaus, 1999).

Lesser, Maurer, Stephens, and Yolkut (2005) conducted a study funded by a grant where they recruited doulas from the community via La Leche League members, WIC peer counselors, childbirth educators, perinatal nurses, and word-of-mouth promotion. Doula training was funded through this grant. During 1-1/2 years 221 laboring women were studied. One hundred twenty women in the control group received routine labor care, and 101 women received continuous doula support during labor. This study determined lower cesarean birthrate and the increased satisfaction ratings which were the indicators that prompted establishment of a permanent program. Data from this study identified that positive outcomes were evident when one or two doulas were providing care, but the benefits of the role decreased when three or more doulas cared for one patient (Lesser et al., 2005).

It was determined that a volunteer program was not feasible and that the doula role would have to be a regular paid position. As a result the initiation of hospital-based program developed where doulas were available at no charge to all women giving birth at this hospital. Approximately 65 percent of the clients were low-income and 35 percent were very diverse; including homeless, students, and stay at home moms. The doulas are hired as per diem staff employees where there were 45 doulas on staff at any given time. Doulas self schedule for a minimum of two 12-hour shifts per month. Two doulas were scheduled for each 12-hour shift with the ability to call-in additional doulas as needed. The maximum number of doulas supporting women during one shift was six (Lesser et al., 2005).

The role and availability of the doula was introduced on tours, in childbirth classes and via fliers placed in clinic and physicians' offices. The initiation of doula care is then by patient request or referral from nurses and physicians. Doula care usually began soon after admission. Once care began, the doula remained with the woman continuously through the labor, birth and the first hour or so postpartum. This program was operated by Women's Support Services, a department that, in addition to the doula program, supports inpatient care through childbirth education, bedside lactation consultation 365 days a year, and domestic violence advocates. The doulas employed at this hospital required ongoing peer support with opportunities to discuss the births and to share feelings and perceptions. The initial mentoring, along with monthly staff meetings, formalizes this supportive sharing. Monthly staff meetings were an opportunity for continuing education programs to enhance skills and ensure competency. The doula's commitment is to the patient. All doulas care includes the integral components of

physical comfort, emotional support including reassurance and perspective, and aids in providing information for informed choice (Lesser et al., 2005).

The objective of a study conducted by Hodnett, et al. (2003) was to assess the effects of continuous support for mothers and babies during labor and to determine whether the effects of continuous support are influenced by; routine practices and policies in the birth environment that may affect a woman's autonomy, freedom of movement, and ability to cope with labor; whether the caregiver is a member of the staff of the institution; and whether the continuous support begins early or later in labor. Hodnett searched through the Cochrane Pregnancy and Childbirth Group trials register and the Cochrane Controlled Trials Register to locate randomized trials comparing continuous support during labor with usual care. Fourteen trials, involving more than 5000 women are included in the Review. All studies, except one, evaluated support by a woman who was not a part of the childbearing woman's existing social network. At least four trials involving at least 1000 women, continuous support was not associated with decreased likelihood of artificial oxytocing during labor, low 5-minute Apgar score, admission of the newborn to a special care nursery or postpartum reports of severe labor pain. The meta analysis of two trials with data from more than 1000 women indicates that continuous support was associated with a reduced likelihood that women will report feeling low levels of personal control during labor and birth and there was a slight decrease in the use of electronic fetal monitoring in the continuous support group in a North American trial (Hodnett, et al., 2003).

According to Hodnett, et al. (2003), continuous labor support appears to be more effective when it is provided by caregivers who are not employees of an institution (and

thus have no obligation to anyone other than the laboring woman) and who have an exclusive focus on this task. Continuous labor support that begins earlier in labor appears to be more effective than support that begin later in labor. Hodnett, et al. (2003) discovered that the continuous presence of a support person reduced the likelihood of medication for pain relief, operative vaginal delivery, caesarean delivery and a 5-minute Apgar score less than 7. Continuous support was also associated with a slight reduction in the length of labor (Hodnett, et al., 2003).

Six trials in the study conducted by Hodnett, et al.(2003) evaluated the effects of support on mothers' views of their childbirth experiences. While the trials used different measures (overall satisfaction, failure to cope well during labor, finding labor to be worse than expected, and level of personal control during childbirth), in each trial the results favored the group who had received continuous support. Women who received continuous labor support were less likely to use pain medication and were more likely to be satisfied and to give birth spontaneously (with neither caesarean nor vacuum nor forceps) (Hodnett, et al., 2003).

According to Hodnett, et al. (2003), women may be particularly vulnerable to environmental influences during labor as many hospitals frequently subject women to institutional routines, high rates of intervention, unfamiliar personnel, lack of privacy, and other conditions that may be interpreted as harsh. These conditions may have a negative effect on the progress of labor and on the development of feelings of competence and confidence; this may in turn impair adjustment to parenthood and establishment of breastfeeding, and increase the risk of depression. It is thought that these negative consequences may be altered by the provision of support and companionship

during labor. Studies of the relationships among fear and anxiety, the stress response, and pregnancy complication have shown that anxiety during labor is associated with high levels of the stress hormone epinephrine in the blood, which may in turn lead to abnormal fetal heart rate patterns in labor, decreased uterine contractility, a longer active labor phase with regular well-established contractions, and low Apgar scores. Emotional support, information and advice, comfort measures, and advocacy may reduce anxiety and fear and associated adverse effects during labor. Recently continuous support has been viewed as a form of pain relief, specifically, as an alternative to epidural analgesia (Hodnett, et al., 2003).

Many labor and birth interventions involve, or may increase the likelihood of, interventions that monitor, prevent, or treat adverse effects. Continuous, one-to-one support has the potential to limit these interventions. If continuous support leads to reduced use of epidural analgesia, this could involve less use of electronic fetal monitoring intravenous drips, artificial oxytocin, drugs to combat hypotension, bladder catherterization, vacuum extraction or forceps, episiotomy, and less morbidity associated with these, and may increase mobility during labor and spontaneous birth. According to Hodnett, et al. (2003), "Every effort should be made to ensure that women's birth environments are empowering, nonstressful, afford privacy, communicate respect, and are not characterized by routine interventions that add risk without clear benefit," (Hodnett, et al, 2003).

Conclusions that can be made in Hodnett's, et al. (2003) study are that continuous support during labor from caregivers (nurses, midwives or lay people) appears to have a number of benefits for mothers and their babies and there do not appear to be any harmful

effects. Continuous labor support reduces a woman's likelihood of having pain medication, increases her satisfaction and chances for spontaneous birth, and has no known risks. Hodnett, et al. (2003) states that, "when women evaluate their childbirth experience, four factors predominate: the amount of support from caregivers, the quality of relationships with caregivers, being involved with decision-making, and having high expectations or having experiences that exceed expectations." In most areas of the world at this time, childbearing women have limited access to trained doula. Where available, costs of doula services are frequently born by childbearing families and may be a barrier to access. According to Hodnett, et al. (2003), it may be possible to increase access to one-on-one continuous labor support worldwide by encouraging women to invite a family member or friend to commit to being present at the birth and assuming this a role (Hodnett, et al, 2003).

Cogan & Spinnato (1988) conducted a study in Texas where woman without complication and at 26-37 weeks gestation was in either a supported group that was accompanied by a trained support person throughout labor by 3cm dilation or in a group without an additional trained support person. The support persons were Lamaze childbirth preparation teachers who were themselves mothers and were assigned upon admission. They received additional training in working with women without childbirth preparation, and information about premature labor. During labor, the support persons provided continuous one-to-one support to the women in labor, provided information to the woman in labor and her family and taught relaxation and breathing measures to the woman in labor. The findings were that each phase of labor was shorter for women with

labor support and Apgar scores were higher than those who did not receive additional labor support (Cogan & Spinnato, 1988).

Hodnett and Osborn (1989) examine the physical and psychological effects of intrapartum professional support on laboring women. The sample consisted of 103 low-risk women in a North American hospital. The design was a stratified randomized trial. The women has uncomplicated pregnancies, were accompanied by husbands or partners during labor, and had vaginal deliveries of healthy newborns. Anxiety, control and commitment to unmedicated birth were measured with established instruments. When labor began, each experimental couple notified their caregiver, who provided continuous support during early labor at home and throughout the hospital labor until one hour postpartum. The control and experimental subjects received routine intrapartum care by nursing and medical staff. Findings included that continuous support for laboring women had no evident effect on labor length. These women were less likely to need pain relief medication (Hodnett & Osborn, 1989).

A randomized controlled trial of primigravidas in Botswana was conducted by Madi, Sandall, Bennett, and MacLeod (1999) to determine the effectiveness of the presence of a female relative as a labor companion on labor outcomes. The 109 primigravidas were randomly distributed into a control group and an experimental group. The control group labored without family members present while the experimental group had a female relative with them during labor. The authors wanted to investigate the relationship between the continuous presence of a female relative in labor and labor outcomes as well as see whether or not having a female relative would improve labor outcomes as has been reported in studies with support by women previously unknown to

the woman in labor (Madi, et al., 1999). This is interesting in light of a study by Meyer, Arnold, and Pascali-Bonaro in 2001 where a review of 127 non-industrialized cultures found that, in all but one, female companions remained with the laboring woman throughout labor (Bianchi & Adams, 2004).

After reviewing the women's medical records, Madi, et al. (1999) found that significantly more mothers in the experimental group had less obstetric interventions than in the control group. It was concluded that the presence of a female relative was associated with few obstetric interventions and more normal deliveries when compared with those women without a family support person (Madi, et al., 1999). One could question whether a male family member would have made as significant a difference as a female relative. Also, could having a companion in the room affect the behavior of the midwife in that she does not use interventions such as medications, forceps or episiotomies.

Wan Yim Ip (2000) was curious as to what childbirth outcomes would differ when the husband was present for labor compared to when the husband was excluded from the labor and delivery room. In Hong Kong most husbands are not allowed in the labor and delivery rooms, therefore women are surrounded by unfamiliar people throughout her childbirth experience. This study used a retrospective, comparative design and utilized 85 nulliparous women. The tool measured anxiety during labor, pain perception, use of analgesia, and length of labor between mothers whose husbands were present during labor and mothers whose husbands were absent. This study found that the husbands' presence during labor had no significant effect of the mother's outcomes of anxiety, perceived pain and length of labor. The small sample size may have limited this

study. Also, the reliability of retrospective assessment may have affected the results. An issue that may need further attention in this culture is looking at how nurse-midwifes can help husbands to provide support that would improve their wive's childbirth experience. (Wan Yim Ip, 2000).

Patricia Rosen (2004) conducted a review of literature including eights studies that were randomized controlled trials or nonrandomized studies; compared a group with support to a group without support; gave clear explanation of who provided support; use continuous or almost continuous support as the independent variable; and examined maternal outcomes, maternal satisfaction, and/or infant outcomes. Dependent variables assessed were duration of labor, use of oxytocin, use of analgesia, mode of delivery and newborn health. Rosen looked at the outcomes when untrained lay women, doulas, female relatives, nurses and montrices were used as continuous labor support. Conclusions for this study suggested that continuous support initiated early in labor appeared to improve childbirth outcomes, but it remains unclear who should provide the support. It is believed that female support persons hired by the woman and not affiliated with hospital may be better able to assist the couple in making informed decisions regarding the childbirth experience.

Scott, Klaus, and Klaus (1999) reviewed the evidence in twelve randomized trials and three meta-analyses regarding the effectiveness of continuous support provided by a doulas during childbirth on obstetrical and postpartum outcomes. Overall the reviews revealed that the increased well-being of the mothers and their infants along with the reduced need for obstetrical interventions during childbirth were evident with the use of a doula. Doula supported women were more likely to show more affection with their

infants, noted less anxiety and were more likely to feel they had a good birth experience than women who did not receive doula support (Scott, et al., 1999).

Hofmeyer, Nikodem, Wolman, Chalmers and Kramer (1991) had an objective to measure the effects of supportive companionship on labor and various aspects of adaptation to parenthood and then the adverse effects of environments on these processes. A randomized controlled trial was used in a community hospital familiar to most of the participants, with a conventional, clinically-orientated labor ward. Nulliparous women in uncomplicated labor were used for this study. Supportive companionship from volunteers from the community with no medical or nursing experience were used with the laboring women to concentrate on comfort, reassurance and praise. Hofmeyer, et al. investigated the hypothesis that during labor women may be uniquely vulnerable to environmental influences; that modern obstetric care may have an adverse effect on the progress of labor an don the development of feelings of competence and confidence; that this may in turn impair adjustment to parenthood and establishment of breastfeeding; and that this process may to some extent be reversed by the provision of positive support and companionship during labor. The study found that companionship had no measurable effect on the progress of labor. Analgesia was significantly reduced. The women reported that they felt they coped well during labor. Hofmeyer et al. concluded that labor in a clinical environment may undermine women's feelings of competence, perceptions of labor, confidence in adapting to parenthood and initiation of successful breastfeeding. These effects may be reduced by the provision of additional companionship during labor aimed to promote self-esteem (Hofmeyer et al., 1991).

Gordon, Walton, McAdam, Derman, Gallitero and Garrett (1999) conducted a study to evaluate the use of doulas during hospital-based labor in Northern California. He took note of the doula's affect on the mode of delivery, epidural use, breast feeding and postpartum perceptions of the birth, self-esteem and depression. This was a randomized study of nullipara enrolled in a group-model health maintenance organization (HMO). One hundred forty-nine laboring women had doulas and 165 laboring women had the regular care. Data was received through the mother's medical charts, questionnaires and phone interviews that were conducted 4-6 weeks postpartum. The women with doulas had significantly less epidural use than women in the regular-care group. They were more likely than the control group to characterize their birth experience as good and felt they coped well with labor. The women utilizing doulas felt labor had a positive effect on their feelings as a woman and perceptions of their bodies' strength and performance more so than the control group. However, the two groups did not differ in rates of delivery mode, oxytocin administration or breastfeeding. They, also, did not differ on the measures of postpartum depression or self-esteem. Some limitations to this study may be the fact that the doula did not work with the mother beforehand, as they were only called when needed. Also, the size of the study may have limited the power of statistic evidence (Gordon, 1999). Long term effects of support during labor on maternal-infant attachment, maternal self-esteem and post partum depression are areas requiring further investigations (Kennell, 1991).

Doula services or other labor companions is not only an item for discussion in the U.S. International views on labor companions can be considered, as well. Hodnett et al. states that the Congress in Uruguay passed a law in 2001 decreeing that all women have

the right to companionship during labor. In several low and middle income countries (China, South Africa, Tanzaniza and Zimbabwee) the Better Births Initiative promotes labor companionship as a core element of care for improving maternal and infant health. Efforts to make doula services available are also occurring in countries such as Australia, Bermuda, Brazil, China, the Czech Republic, Israel, and South Africa (Hodnett, et al, 2003).

Adolescent Pregnancy

One of the most serious problems facing the nation today is unmarried teenage pregnancy. It creates complex social, economic, and health problems in the United States (Medora & von der Hellen, 1997). When looking at adolescents in regards to pregnancy and childbearing, it is important to know that there is a difference between the two. Kenshaw (1998) tells us that each year almost one million teens become pregnant. Seventy-eight percent of these pregnancies are unplanned. Thirteen percent of U.S. births are to teens. Statistics from the Guttmacher Institute state that almost 750,000 women aged 15-19 become pregnant (Guttmacher, 2006b). In 2002 the Guttmacher Institue reported that approximately 764,000 women younger than age 20 were pregnant. Approximatly 433,000 of these women gave birth. What occurred to cause the difference in numbers? Abortion and miscarriages are two factors that have been related to the change in numbers. 29% of 15-19 pregnancies ended in abortion in 2002 (Guttmacher, 2006d; Guttmacher, 2006c).

Early pregnancy and childbearing are non-normative life circumstances that present challenges for which most adolescents are not prepared (Langfield, Pasley,

Wolchik & Sandler, 1997). Because having a baby while still in high school is considered a social "faux pas" in many settings, the young, soon-to-be mother loses many of the relationships that she once had with friends, family, and the father of her baby.

By 19 years of age, at least 80 percent of adolescents in the U.S. report having experienced intercourse (Langfield, et al., 1997). According to Guttmacher (2006d), six in 10 teenage women will have had sexual intercourse by her 18th birthday. The pregnancy rate among U.S. women aged 15-19 has declined from 117 pregnanices per 1,000 women in 1990 to 75 per 1,000 women in 2002. Between 1991 and 2001, both improved use of contraceptives and delay in initiation of sexual intercourse contributed to the decline in teenage pregnancy rates. Use of contraceptives remains the critical factor mediating the risk of pregnancy among sexually active teenagers (Guttmacher, 2006 d; Santelli, Morrow, Anderson, Duberstein-Lindberg, 2006).

Young mother-hood is economically taxing because of the higher need for obstetric interventions and monetary support for the young mothers through welfare. The increasing number of such pregnancies has been widely recognized as a chronic problem in American society and has drawn continuous public attention (Paik, 1992). Although U.S. adolescent pregnancy rate has decreased since its peak in 1990, it is still higher than most industrialized countries. Teens in the US. are more likely to have sexual intercourse before age 15 and have shorter and more sporadic sexual relationships then teens in other developed countries. (Guttmacher, 2002). The rate of teen pregnancy in the United States is more than twice as high as the rates in England, France, and Canada, almost three times as high in Sweden, and seven times as high as the Netherlands (Medora & von der Hellen, 1997, Guttmacher, 2006a). When comparing the

United States with Sweden and the Netherlands, the U.S. has higher pregnancy rates despite similar economic and cultural norms. Teens in these countries report similar levels of sexual intercourse, however, U.S. teens are less effective in preventing pregnancy (Langfield, et al., 1997, Guttmacher, 2006a). Teens in the U.S. are less likely to use any contraception methods and are especially less likely to use the more highly effective hormonal methods. U.S. adolescents are also less likely to choose abortion due to lack of access, higher levels of antiabortion sentiments or because of a greater acceptance of teen motherhood (Darroch, Singh & Frost, 2001; Guttmacher, 2002). It was seen that in all the studied developed countries, teens in disadvantaged economic, familial and social circumstances were more likely to engage in risky behavior leading to pregnancy. Pregnancy was more common in the U.S. due to the greater proportion of disadvantages families.

Berne & Huberman (2000) studied peer-reviewed research and background data about adolescent sexuality in the Netherlands, Germany and France. A qualitative, critical analysis was conducted on access to health care; sexuality education; mass media, public education, social marketing campaigns; and family, community and religion as they impact sexual behavior. All three European countries have utilized widely distributed mass media and public education campaigns produced on a national basis. The Netherlands, Germany and France have implemented campaigns developed to prevent the spread of AIDS among all sexually active people in the population, including adolescents. All the campaigns were developed with federal funding and distributed through a variety of channels, often free or at reduced charge. The content of the campaigns was driven by research and developed by social marketing experts in

cooperation with educational and behavior change specialists. The focus of the campaigns has been on positive aspects of a sexual relationship, communication and sexual responsibility at the interpersonal level, and empathy and corporate responsibility at the societal level. According to Bern & Huberman, "Their acknowledgement of humankind's sexual nature as normal, and the openness with which sexuality is presented and celebrated, are among the most profound and remarkable differences observed," (Berne & Huberman, 2000).

In all three European countries, sexual development in adolescents is viewed as a normal and healthy biological, emotional, social, and cultural process. To promote sexual health, public campaigns coordinate with school sexuality education. Teaching is a collaborative effort among school personnel, community youth workers, sexual health clinicians, and volunteers. Adolescents are a part of the planning process of the campaign efforts. This empowers youth and assists in creating social norms that support sexual responsibility (Berne & Huberman, 2000).

Weaver, Smith and Kippax (2005) conducted a literature search in the Netherlands, France, Australia and the United States to consider whether the personal and social aspects of sex and sexuality are included in school curricula along with the biological aspects The authors also investigated content areas that are covered in sex education and the general framing of sex and sexuality. They looked at sexual health outcomes such as pregnancy, birth and abortion rates, age of first intercourse, contraceptive use and STI/HIV incidence rates. Findings of this study suggest that abstinence-based policies do not necessarily result in improved sexual health outcomes for young people. Furthermore, comprehensive policies do not necessarily "promote"

sexual activity and may serve to better equip adolescents with skills that are considered low risk. Weaver, et al. (2005) states that, "young people's reproductive and sexual health is best served when sex between young people is acknowledged, accepted and regulated rather than proscribed in all contexts outside marriage." A debate exists between those who accept sex between young people and those who do not. For some, any sex between young unmarried people is unacceptable and the cure is preventing it from occurring. Others accept that sex between young people is natural and that sexual responsibility is about providing low risk option to be free from the transmission if HIV and other sexually transmissible infections (STIs), unwanted pregnancies and other negative consequences (Weaver, Smith, & Kippax, 2005).

In the Netherlands sex education is mandatory under the national health promotion program Living Together. Schools must cover the topics of pregnancy, STIs, sexual orientation and homophobia, value clarification, respect for differences in attitudes, and skills for healthy sexuality. Teachers are trained to provide sex education by the Netherlands Institute for Health Promotion and Disease Prevention. The goal of the program is to provide information on how to behave responsibly if they decide to have sex and to be able to identify safe and unsafe sexual practices. Students are encouraged to be active in their own education. An example of this is the use of youth advocates to inform the content of local sexual health policies through student councils and youth organizations (Weaver et al, 2005).

In France, sex education in 1973 was primarily focused upon biological reproduction. By 1985, sex education was more of a focus in "life education classes" taught at the primary school level. Sex education in France became more comprehensive

with the AIDS epidemic, but the focus continued to be upon biological sexual maturation, sexual reproduction, HIV and STD prevention and method of contraception (Weaver et al, 2005).

In Australia in 1967, the focus of education was "family life" and included social, emotional and sexual development. Then in the 1980's the focus was upon disease transmission due to the AIDS epidemic. A comprehensive approach to sex education has been seen more recently. Australia society is accepting young people as sexual beings and providing the skills to enable them to control and enjoy sexual activity by providing appropriate and comprehensive curriculum content in areas such as personal decisions and behaviors, sexual health, diversity and social justice (Weaver et al, 2005).

The U.S., in contrast, has no federal laws that require sexual health education in school. The provision of sex education is up to the individual states. Abstinence based programs are currently the predominate form of sex education. In 1981 the Adolescent Family Life Act (AFLA) began laying policies regarding sex education. Then in 1996, Title V, Section 510 of the Social Security Act began the abstinence education incentive. This provided details of abstinence education programming which proclaimed that sexual abstinence was the only way to avoid STIs, pregnancy and psychological harm and that sex and childbirth outside of marriage was against social standards and harmful to individuals, children, parents and society. Today there are two kinds of abstinence based programs: abstinence plus and abstinence only. Abstinence plus policies promote abstinence as the preferred option for adolescents. This policy allows contraception to be discussed as effective in protecting against unintended pregnancy and STD or HIV. Abstinence-only policies require that abstinence be taught as the only option outside of

marriage. Discussion of contraception is either prohibited or its ineffectiveness in preventing pregnancy and STI is highlighted (Weaver et al, 2005).

According to Weaver, et al. (2005), each of the countries, except U.S. begins sex education in primary school. Each country except U.S. has programs in place to further teacher training in the area of sexual health and each requires that the teachers, who teach sex education, are qualified to do so. In addition, teachers in France, Australia and the Netherlands are encouraged to address any questions students might have about sexuality and sexual health. In the United State, only 69 percent of school districts have a policy to teach sex education, sex education is usually introduced at the secondary school level, and it is typically taught by teachers without training in sexual health with a focus on the biological aspects of sex and to sexual abstinence (Weaver, et al., 2005).

Nature of Adolescent Pregnancy

Many trends have influenced adolescent pregnancy in the 20th century. By using studies conducted by Treffers, et al.(2001) and Palmore & Millar (1996), this section will discuss the many reasons believed to lead to unplanned teenage pregnancies. Palmore and Millar developed an interview protocol assessing a teen's experiences with family substance abuse, emotional, physical and sexual abuse, and rape. They used a convenience sample that consisted of 84 female adolescent high and middle school students, aged 13-19 in a voluntary alternative educational program for pregnant teens. Treffers, et al. reviewed how health issues in pregnant adolescents differ from those of adults in order to focus on actions that would require different amounts of attention or levels of attention.

Treffers,et al. (2001) notes that the declining age at menarche is one trend of concern. In western countries, as a consequence of increased nutrition throughout the twentieth century, the age at which puberty is achieved has decreased. The age of a girl's first menstrual cycle has declined from around 15 years old to around 12.5. A girl is now able to conceive three years earlier than before. During the second half of the twentieth century men and women have been engaging in first intercourse at increasingly earlier ages and people are marrying at older ages. The gap between age of marriage and physical sexual maturity has also widened during the second half of the twentieth century (Weaver et al, 2005; Treffers, et al, 2001).

According to Treffers, et al. (2001), longer schooling and delayed marriage have an inverse relationship. An increasing proportion of the adolescence period are now spent in school. Those adolescents who finish seven years of schooling in developing countries and ten to twelve in developed countries are more likely to delay marriage until after age 18. This increases the length of time that unmarried adolescents are at risk for pregnancy.

Another trend in the Treffers, et al. (2001) study is the use of contraceptives, which is increasing globally. Unfortunately, there is inadequate access in developing countries. Developed countries have better services that provide contraception and safe termination of pregnancy. The U.S. is less likely to use the more effective hormonal methods of contraception and has lower abortion ratios compared to other developed countries possibly because of the greater difficulty teens have in accessing abortion services than teens in other countries. It also provides some support for the interpretation that motivation to delay early motherhood is lower and acceptability of adolescent

childbearing and antiabortion sentiment are greater among U.S. teens (Treffers, et al., 2001).

Poverty is a trend that generally leads to increased childbearing because the greater a population's disadvantage, the less difference childbearing in adolescence makes in determining long-term success. More impoverished adolescents have fewer opportunities and reasons to avoid or delay childbearing (Treffers, et al., 2001; Palmore & Millar, 1996). Early childbearing occurs more frequently in the lower socioeconomic classes (Paik, 1992).

A qualitative study conducted by Clifford and Brykezynski (1999) was conducted at a large urban high school in Texas to explore teenage mothers' perceptions of sexuality. Nine 15- and 16-year old African American student mothers participated in this study. Data collection included individual interviews plus demographic data forms. According to Clifford and Brykezynski (1999), increased sexual activity in terms of intercourse in adolescence is probably not due to libido or other biological reasoning. This increased sexual activity (intercourse) may be because of a need for affection, to ease loneliness, to confirm masculinity or femininity, to bolster self-esteem, to express anger, or to escape from boredom. Most early adolescents do not have the ability to develop appropriate sexual relationships that distinguish between love and lust, and intimacy and sex, nor do they make decisions or communicate effectively about the proper use of contraceptives. This tends to happen in late adolescence, which occurs around 18-21 years of age (Clifford & Brykczynski, 1999). Many teens have poor future orientation and a feeling of hopelessness. They may have a low ability to make realistic plans for their future. They, also, may have little understanding of the normal

consequences of sexual intercourse. Many believe that pregnancy will not happen to them; they feel invincible (Paik, 1992; Elkes & Crocitto, 1987).

Family disintegration has been cited as one of the contributing factors for the adolescent sexual relationship (intercourse). When parents separate, divorce, or die, children may feel loss, abandonment, or betrayal of their parents and become angry and depressed. Adolescents may try to fill the need for parental caring absent in the home, the need for being held, cuddled, and cared for, through sexual relationships (Paik, 1992; Clifford & Brykczynski, 1999).

Risky sexual behavior which increases the risk for pregnancy among youth may be a symptom of childhood victimization experiences including physical assault, sexual abuse, emotional abuse and family substance abuse. A study conducted by Palmore & Millar (1996), as detailed previously, found that around 50 percent of the pregnant adolescents had fathers or step-father/mothers that abused substances, with beer and hard liquor being the most common. Around 50 percent had a history of physical violence. The abuse included punching, knocking against the wall, and hitting with extension cords and belts. Twenty-six percent had a history of sexual abuse that occurred at an average of age seven or eight. The perpetrators were uncles, stepfathers or family friends living in the home. Twenty-five percent were raped at some point in their past (Palmore & Millar, 1996).

In most of the developed world, many young women become sexually active during their teenage years..almost ¾ by age 20. There has been a drop in adolescent pregnancy rates over last 25 years among developed countries. Reasons for the decline include increased motivation of youth to achieve higher levels of education, employment

training; provision of comprehensive sexuality education that includes discussion about contraception and more effective contraception and greater social support for services related to pregnancy and disease prevention. Countries that exhibit low levels of adolescent pregnancy are socially accepting of adolescent sexual relationships, utilize comprehensive and balance information about sexuality and have clear expectations about commitment and prevention of pregnancy and STDs within these relationships. Easy access to contraceptives and other reproductive health services also contributes to better contraceptive use which decreases teenage pregnancy rates. (Guttmacher, 2002).

Darroch, et al. (2001) conducted a collaborative study of case studies in five developed countries regarding adolescent pregnancy, birth and abortion rates, and sexual and contraceptive behavior. The five countries involved in this study were Sweden, France, Canada, Great Britain and the United States. These five countries have a high per capita income and are highly developed and industrialized, but they differ in their government policies and programs that address social and economic inequality, in their health care systems and their provision of services to teenagers, and in their societal attitudes concerning sexuality and adolescents. These factors are likely to affect adolescent reproductive behavior. The use of methods with a low failure rate is utilized more in the other countries studies than in the U.S. These differences in methods use are consistent with differences in pregnancy rates and appear to be the more likely cause of the higher teenage pregnancy rates in the U.S. than any differences in sexual behavior. The way society views adolescent sexual activity can influence provision of reproductive services for adolescents. Contraceptive services and supplies are available free or low cost for all teenagers in the four developed countries other than the U.S. These countries

make an exerted effort to facilitate their easy access to such services. There also may be differences in adolescents' attitudes toward contraceptive methods, in the accuracy of their knowledge of how to use methods, in the fear of side effects, in the level of confidentiality and in the extent of parental support or opposition. The U.S. has a lower abortion ratio that the other four study countries, particularly among adolescents aged 15-17. The lower abortion ratio may reflect that American adolescents may have difficutly in accessing abortion services than teenagers have in the other countries. The lower abortion ratio, may also suggest that motivation to delay early motherhood is lower, and acceptability of adolescent childbearing and antiabortion sentiment are greater among U.S. adolescents (Darroch, et al., 2001).

National health care in each country covers the basic costs of services, prescriptive products, and treatments. Condoms were not free through national health care, but were found to be inexpensive. In the Netherlands, national health insurance funds all resproductive health services including contraceptive pills and devices; emergency contraception; abortion; testing for pregnancy, HIV and STI; prenatal care and delivery; and all drug therapy associated with early diagnosis and treatment of STI, HIV and AIDS. In Germany, oral contraceptives, IUDs, barrier methods, ECP and sterilization are free of charge to women aged 20 and younger. Abortion is legal and covered during the first trimester as well. Condoms are available in pharmacies, grocery stores, restaurants, nightclubs and vending machines in most public rest rooms. The US focus is not of safer sexual health for adolescents, but on sexual abstinence. Many barriers deter US teens from accessing contraception, including lack of transportation, high costs, pelvic exams, limited clinic hours, paperwork, adult disapproval, and fear that

parents might find out. Negative messages about sexuality and barriers to health care services, lead to sexual risk-taking behaviors in the US (Berne & Huberman, 2000).

Singh, Darroch and Frost (2001) used a team of researchers in Canada, France, Great Britain, Sweden and the U.S. to prepare an in-depth case study on adolescent sexual behavior, contraceptive use, and pregnancy and abortion rates, with each measure broken down according to available socioeconomic variables. Overall, in western European countries, the proportion of the population that is disadvantaged is smaller than the proportion in the US. This difference could be related to youth assistance programs that the western European countries offer that include vocational training, assistance with finding a job and unemployment benefits which aid in the transition from adolescence to adulthood. In all five countries, there is a strong negative association between level of educational attainment and having a child before age 20 with women in the US having the highest levels of childbearing before age 18 at all three levels of educational attainment (Singh, Darroch, Frost, 2001).

Adolescent Labor and Delivery

Research studies have focused on the progressions of labor and delivery with adult primiparas and multiparas, but few studies have focused on the adolescent childbirth experience. Because of this lack of research, there is little information that can help clarify the outcomes of labor and delivery in adolescents.

Current knowledge of how women interpret birth experiences is based on studies of adult women who are primarily Euro American, married, hightly educated and from middle to upper income levels. Low, Martin, Sampselle, Guthrie and Oakley (2003) conducted an exploratory qualitative analysis of adolescents' birth stories to identify

possible differences between the ways that adolescents experience childbirth compared with existing literature reports on women's interpretations of childbirth. The authors then made suggestions on how health care providers can make a positive impact on adolescents' experiences of childbirth. Less then half of teens attended childbirth classes and most of those classes were focused on infant care and parenting, not on the birth experience. In comparison, approx 70% of adults attended childbirth preparation classes. The plans and expectations of these adolescents were focused more about the baby than about the birth experience. This differs from adults who commonly plan extensively for both. In this study, the adolescents were very focused on their baby rather than on the actual process of birth. Adults have mixed experiences, both positive and negative, about the pain of childbirth. For adolescents in this study, if pain was the defining feature of the experience, then it was described as a negative birth experience overall. Adolescents in this study related the experience of pain in labor with the pain of taking on added responsibility. Literature on adults do not describe any findings about accepting and taking responsibility of the pregnancy as painful. Adolescents look to others such as peers, family, and health care providers for reactions and feedback. Whereas adults are more likely to have a sense of confidence or less reliance on what others say or think of them to feel good about themselves. Low, et al. states, "An additional dimension of the birth experience that adults do not have to contend with is the social context being a 'baby having a baby' and all of the moral and cultural considerations that it brings,"(Low, et al., 2003).

U.S. children of adolescent mothers are at higher risk of having poor birth outcomes such as low birth weight, pre-maturity, and neonatal death than children of

older mothers. Finkelstein, Finkelstein, Christie, Roden and Shelton (1982) conducted a study that reviewed the medical charts of 14-,15- and 16-year olds at the University of Texas Medical Branch and compared them to 100 randomly selected women aged 20-30 years old. The authors state that teens have a shorter gestation period than adult women. Where the average-aged pregnant woman carries her baby for 42 weeks, the pregnant adolescent carries her baby for a few weeks less. This may account for the less desirable health and developmental outcomes that occur with adolescent pregnancies compared to children born to older women. It is also mentioned that teens have fewer spontaneous deliveries, with 14 year olds having the highest percent of cesarean sections. Adolescents have up to 1.5 times more delivery complications that result in the use of forceps (Finklestein, et al., 1982).

Sittner, Hudson, Grossman and Gaston-Johansson (1998) conducted a descriptive study to describe the quality and intensity of adolescents' pain during the progression of labor. The authors administered the Gaston-Johansson Pain-O-Meter to 33 adolescents ages 16-19 during 3 phases of labor following a contraction. This study concluded that "childbirth is the most painful experience women ever encounter." Investigations have found that the perception of pain increases as labor progresses. Pain is influenced by psychological and physiological variables. The psychological aspects of childbirth are now recognized as very important in the reporting of pain during childbirth. Fear and anxiety, for example, are two factors which affect the intensity of reported pain during labor (Scott-Palmer & Skevington, 1981; Sittner, et al., 1998). While knowing how various factors influence adolescents in labor is of great importance, so is the importance of how adolescents use childbirth support.

Adolescent Childbirth Support

Support during labor has been discussed previously and the importance has been noted. This importance extends to adolescents who are pregnant and going through labor. Because of their youth and limited access to economic and social resources, the teen population needs support more so than adult women.

A study conducted by Bachman showed that adolescents identified the labor and delivery process as the most important topic to have knowledge about. This was a descriptive study that investigated self-described learning needs and preferences for teaching methods of 121 pregnant 7^{th}-12^{th} grade students enrolled in an alternative school setting. An assessment of learning needs of pregnant teens was given through the Learning Needs Assessment for Pregnant Adolescents questionnaire. The questions related to pregnancy, pregnancy prevention, labor and delivery, postpartum, the baby and complication of pregnancy. According to the results, in the late second and third trimesters, adolescents are concerned how to recognize the initiation of labor, discomfort and pain during birth, why cesarean sections are performed, what the hospital is like and whether anyone dies during childbirth (Bachman, 1993).

Doyle and Widhalm (1979) demonstrated how pregnant teens, a challenging and vulnerable group, can be favorably managed in a friendly setting with skilled and empathetic personnel. The authors conducted a study utilizing a two year report of evening clinics for Hispanic and Black adolescents in South Bronx, New York City. This prenatal clinic was for low-risk teens and was administered by midwives. This study

reviewed the development of a clinic designed for pregnant adolescents. Through the staffing; prenatal education; postpartum education and family planning education; pregnancy outcomes such as adequate maternal weight gain, newborn weight of over 7 pounds were more favorable for those who went through the program than those who did not have any prenatal education (Doyle & Widhalm, 1979).

The nurturing care and emotional/physical support of a professionally trained childbirth assistant during labor significantly impacts birth outcomes, mothering ability and mother/baby attachment (Laing, Newton & Sprengle, 2000). The support of the adolescent is very important. As stated earlier, the benefits of a supported labor in teens are shorter labor, less medication and epidural analgesia, few Apgar scores less than seven and fewer operative deliveries (Treffers, et al., 2001). Brown, Campbell and Kurtz (1989) conducted a descriptive correlational study using repeated measures. They wanted to investigate and compare characteristics of the pain experience during labor. Using a convenience sample of 78 women in the first stage of labor the Visual Anologue Scale, The Mc Gill Pain Questionnaire Part 2 and Part 4 and The Behavioral Index of Pain were administered. They found that the Mean Pain Rating Index scores were higher for clients who were younger than age 20, for primigravidas, for single women, for women receiving oxytocin, and for subjects who were alone during childbirth than for those who had a support person present. Clients who had a support person present during labor had lower mean pain scores (Brown, Campbell & Kurtz, 1989).

Adolescents using Doulas

A prime example of adolescents using doulas is with the Chicago Doula Project. The Chicago Doula Project was designed to enhance the mother-infant relationship, as

well as perinatal health outcomes. This project has trained several paraprofessional women as doulas to provide prenatal, intrapartum and postpartum support to birthing teens in three communities in Chicago. This program is a collaboration between Chicago Health Connection, the Ounce of Prevention Fund, and the home visiting programs for pregnant and parenting teens at Alivio Medical Center, Christopher House, and Marillac Social Center. The doulas in this program begin to develop a trusting relationship with their clients as early in pregnancy as possible, and intensify involvement in the third trimester. They are present during labor and delivery to provide continuous emotional and physical support to the birthing teen. The relationship continues until the baby is twelve weeks old, at which point the teen is transitioned to the home visitor for ongoing, relationship-based social support (Abramson, 2000).

After a four-year pilot study, the site directors believe that the Doula Project has had important effects on the program participants' prenatal care and birth experiences. Breastfeeding outcomes were impressive. More than 80 percent of the participants initiated breastfeeding, and at six months almost 22 percent of them were still breastfeeding compared to 12.2 percent of U.S. teens. The C-section rate for doula attended births was 8.1 percent, compared with 12.9 percent for other teen mothers in Chicago. Epidural anesthesia was utilized by only 11.4 percent of the Doula Project participant, compared with estimates of at least 50 percent for vaginal births at U.S. urban hospitals (Abramson, 2000).

Few studies have been conducted on the use of doulas by the adolescent population. Scott, et al. (1999) states that, "the beneficial effects of doula support may be especially important for high-risk mother who may have limited social resources." The

"high risk mother" with "limited social resources" speaks directly to the pregnant adolescent population.

Chapter III

SUMMARY OF FINDINGS

Much of what had been done by labor supporters in other cultures has provided simple, practical help based on the handed down experiences of generations of women. It was intended to help the labor experience be a positive one (Kitzinger, 1996). Simpkin mentions that it is important to find out what the women's expectations and hopes are in terms of clinical management, use of pain medications, presence of loved ones and support people. It is important to be aware of her fears and concerns. Simpkin also stated that the caregiver needs to recognize that he/she is looked up to during this critical period and can contribute directly to her long term satisfaction and to her self-esteem. The potential for psychological benefits or damage is present at every birth. The goal of a positive experience and a safe outcome should guide care (Simpkin, 1991).

The way in which support influences labor, delivery and perinatal outcomes has not been fully understood. In the study conducted by Kennell, the fact that an observer who stayed in the labor room at some distance had a significant effect on obstetrical outcome measures even though she did not speak to the mother, may give an idea about the need of a woman during labor (Kennell, 1991). The challenge is to turn to obstetric technology only when necessary, relying instead on the practice of continuous labor support to help the birth process follow its natural normal course (Kennell, 1999).

The reviewed literature has shown that pregnant adolescent females are an at-risk group for obstetrical complications. There are concerns that because of their social environment constraints they have not matured enough to handle stress of the pregnancy alone. The doula can provide that ongoing emotional support when significant others,

nurses or doctors fall short. The doula has the capabilities of being at the teen's side for the entire durations of the labor and delivery process as well as being a support before and after the childbirth. Utilizing a doula is an option that may be used to decrease time and money for both the mother and hospital and increase the self-esteem and locus of control of an adolescent who desperately needs assurance.

Recommendations

Because of the incidence of pregnant adolescents, health officials and health educators need to enhance their awareness and strengthen educational programming about pregnancy and contraception. Awareness and programming are usually initiated through the policy level. National goals have been set for adolescent sexual and reproductive health through Healthy People 2010. This includes delaying the initiation of sexual intercourse among teens, increasing abstinence among sexually experienced teens, increasing the use of contraception, increasing the use of condoms, and decreasing teen pregnancy. One must realized that different segments of the adolescent population likely require different policy responses, rather than attempting a one-size-fits-all approach (Brindis, 2006).

According to Brindis (2006), the decline in the teen birthrate could be related to policies and practices that include an increase in public education about HIV and other STIs and a focus on males for policies in regards to reproductive behavior. The decline in teen birthrate has also been contributed to a rise in conservative attitudes toward premarital sex and the increased use of new methods of contraception. Economic expansion may play a role in decrease.

Other influential policies include laws and appropriations regarding the availability of birth control and family planning services. When looking at access to health service one must take into consideration that different groups in society, such as adolescents, may require care to be delivered in a different way. When access is made easier sexually active teens are more likely to attend a Family Planning Clinic and improved health, sex education and contraceptive services need to be appropriate, comprehensive and accessible. Opening times of clinics, school hours and travel arrangements are crucial to consider due to transportation barriers. Teens prefer poster, postcards and credit-sized cards for key information such as telephone numbers that can placed where young people congregate instead of the traditional fliers. Teenagers are a difficult group to attract to health services: access, perceived ideas of disapproval and lack of confidentiality all impact. Other ideas to incorporate into a community-based pregnancy prevention program include a staff especially trained to work with teens that are nonjudgmental, offer provision of popular music and videos, attach minimal or no costs, and assured confidentiality. Sexuality education should continue to be offered outside of school, as well as inside school settings in order to target harder-to-reach teens and teen at higher risk of early pregnancy. Links should be created with other programs that reach youth, such as employment program, foster care, and juvenile justice. Funding should also be funneled to community-based organization to sponsor comprehensive sexuality education programs and to train providers to teach sexuality education (Barron, 2005).

Policies on sex education in public schools and government-funded media campaigns must be considered. Schools are settings that make learning a priority and

reach almost all young people. Schools are an important resource for providing children, adolescents and young adults with the knowledge and skills they need to make and act upon decisions that promote sexual health.

To date there is no sound research suggesting that abstinence-only education delays the initiation of sexual activity. However, there is evidence that abstinence-only programming, that either excludes information about condoms and contraception entirely or permits only negative information, may be making it harder for young people to effectively participate in low risk behaviors down the road. (Guttmacher, legislating, 2006). Duberstein, Santeli and Singh (2006) states that there was a decline from a comprehensive approach to sex education from 1995 to 2002. These declines in instruction about birth control methods, combined with increases in abstinence education, resulted in teens not having received formal instruction about both abstinence and birth control methods, and having received instruction only about abstinence. During this same period, there were declines in broader instruction abut sexual orientation, abortion, and where to go for birth control and STD services (Duberstein, et al., 2006).

Comprehensive sex education is teaching that provides balanced and accurate information on both abstinence and birth control. Efforts to reduce the incidence of teen pregnancy have included sexuality education programs endorsed as effective by the Centers for Disease Control focusing on abstinence, decision making, and contraception. Other programs focused on youth development and have used strategies to enhance self-esteem, mentoring and goal orientation. A simulation of the parenting experience using a computerized baby is another approach directed toward the goal of delaying teen pregnancy. (Didion & Gatzke, 2004).

While parental involvement is minors' health care decisions is desirable, many minors will not partake in important services if they are forced to involve their parents (Guttmacher, 2007). When looking at programs offered in school or community-based, programs should include ideas on how to improve parent-child communication. Less parental communication is indicative of poor sexual health decision making and more pre-marital coitus. Lack of communication is also linked with low economic status and education (Barron, 2005). As mentioned previously, some antecedents associated with adolescent sexual activity, contraceptive use, pregnancy and childbearing are economic and social disadvantage such as poverty, low educational attainment, membership in an ethnic/racial minority group, family structure, and unemployment. The role of family and peers in influencing youth behavior, from cultural messages to the media, shape the perceptions of young people. For the most part, adolescents receive limited direct guidance. In order to effectively address teen pregnancy, the behavior of youth must be altered, in concert with changing the attitudes and behaviors of peers and adults with whom they have relationships (Brindis, 2006).

In order to provide quality care for this adolescent population we must keep in min the barriers to care for this age group which include lack of familiarity with the health care system, ability to pay for services, fear of disclosure of confidential information to family or friends, and fear of being unable to access the full range of contraceptive and reproductive health services without the consent of a parent or guardian. The controversy over who has the right to make reproductive decisions for

adolescents, and the role that government should or should not play to ensure access to reproductive health services, is not likely end anytime soon.

Young girls need to have a heightened sense of themselves and their bodies. Prevention programs have been implemented in the public and private sectors, but the focus is often on the surface of this issue. The prevention programs that have been in place, focus on educating young girls and guys about the changes that would occur if they were to become pregnant and the obvious reasons why they are pregnant. Prevention programs should incorporate more of the emotional issues that are involved with adolescent pregnancies, such as divorced parents, emotional abuse, rape, etc. There would be a possibility of reaching a young woman who has been emotionally abused, referring her to the appropriate resource, and preventing an unwanted pregnancy.

When primary prevention efforts have not succeeded health officials and health educators need to recognize that these adolescents are not physically or mentally ready to handle these challenges alone. Offering more prenatal classes for pregnant adolescents within the school system and hospitals would be a good start. Educating these young women about the changes that will occur with their bodies, what labor and delivery will be like, and what a newborn baby needs will help ensure a successful labor and delivery process.

Common problems and complication during pregnancy include poor weight gain and anemia and, later in life, teen mothers are at a greater risk for obesity and hypertention than older child-bearing mothers. In addition, babies born to teen mothers are at an increased medical risk, suffering from a higher rate of low birthweight and related health problems, compared to children born to older mother aged 20-24.

Consequences of low birth weight include infant death, blindness, deafness, chronic respiratory illness, mental retardation, and cerebral palsy. Children born to teen mothers are more likely to start school unprepared to learn. Many teen parents may not have the knowledge or resources to provide a stimulating environment at home, depriving their children of opportunities to learn (Suner, Nakamura, and Caulfield, 2003).

Intervention programs are used to reduce teen pregnancies through outreach in schools and counseling services; improve the likelihood of successful pregnancies carried to full term through prenatal classes; provide parenting classes and support groups for teen parents; serve as a conduit for other community agencies and services. Intervention programs provide prenatal and parenting classes regarding proper nutrition during pregnancy, stages of labor and childbirth, bonding, breast-feeding, etc. Shelters are an option that provides a residential setting for pregnant teens with no family support. Services include counseling, birthing, and mentoring assistance. The goal is to facilitate the teen's successful integration back into the community, making sure that she can provide and care for her newborn. What is often missing from such community programs is a home environment for pregnant and parenting teens that teaches and instills family values and that offers opportunities to learn practical like skills, such as balancing a checkbook. A proposed alternative program would provide a safe, nurturing environment; learning ways of preventing repeated pregnancies; developing self-esteem; acquiring critical parenting skills, including age-appropriate ways of disciplining children and stimulating their development; completing or continuing their education and pursuing a vocation or carer; teaching life skills such as managing finances and balancing a

checkbook; breaking the cycle of domestic abuse; providing moral support and guidance in family-oriented atmosphere. (Suner et al., 2003).

The Adolescent Parenting Program (APP) is a secondary pregnancy prevention program for first-time pregnant or parenting teenagers. The program is designed to assist local agencies and departments of social services in strengthening preventive services to first-time pregnant and parenting adolescents at the county level. Participation in APP is voluntary and adolescents can stay in the program as long as they remain in school and do not have a second pregnancy. The primary goal of APP is to provide case management and direct services that will lead to personal self-sufficiency and economic self-support. This program wants to ensure school continuation, access to health care during pregnancy and after childbirth, and opportunities for parenting education and employment for the teenage mothers. APP coordinators also provide reproductive health information, including abstinence and birth control resources, to help program participants prevent a second pregnancy until after graduation from high school. App has 6 objectives: avoid a second pregnancy during program participation; use appropriate health care for the adolescent mother and child; remain in high school or an equivalent program until graduation; enhance parenting abilities; prepare for employment ; eliminate substantiated referrals of abuse or neglect. Outcomes measured were prenatal care utilization, birthweight, gestational age, time until second birth (Sangalang, Barth, and Painter, 2006).

The time around labor and delivery is a critical period in the life of a young family and all too often, professional support for families who are making this transition is fragmented. Different providers address the physical health of the baby and mother

during pregnancy, labor and delivery, and the postpartum period. Few, if any professionals, offer sustained social and emotional support that extends across the entire perinatal period. This is where hospitals and birthing clinics need to offer doula assistance for all births, especially for adolescent births. The cost of having a doula on staff is much less compared to the cost that society would pay for the health care of the adolescent without a doula. Lesser, et al. (2005) conducted research on an example of a hospital utilizing doulas. Using their research, one could initiate a hospital-based doula program.

There has been little research done upon pregnant adolescents using doulas or doulas in general. More focus on this at-risk group and doulas would enhance the understanding of their needs and could offer suggestions that would alleviate the high costs, both emotional and physical. Also, more research on the trends in sex education, in terms of key subjects and timing of instruction may be beneficial. Comparisons within the different minority groups are scarce. More focus on these areas will enhance the understanding of pregnancy among adolescents and the role continuous support has with them.

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