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Defining the Role of Caregivers in
Promoting Maternal Adaptation in Unintended Pregnancies
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Abstract

Objective

The purpose of this study is to identify the psychosocial needs and views about desired services and decision making of women with unintended pregnancies who seek the help of pregnancy counselors or caregivers. Women were asked to describe in their own words what they found helpful and unhelpful in counseling. This information will be used to more clearly define the role of caregivers with women during their experience in hopes of improving maternal and newborn outcomes in unintended pregnancies.

Design

A mixed-method design with a quantitative descriptive component and a qualitative descriptive component was used

Setting

Data were collected over the course of several months and took place at two locations of Pregnancy Help. Pregnancy Help are pregnancy resources centers located in Brighton and Natick near Boston, MA.

Population

Pregnancy Help serves women ranging from teenage years to women over 40, with mostly of lower socioeconomic status, and lower educational attainment with a wide range of backgrounds such as Caucasian, African-American, Haitian, Brazilian, and women from other countries.

Methods

Prospective participants were contacted on the telephone and invited to participate in the study during their third trimester and up to 2 years postpartum. All 23 participants were included

in the 15 to 35 minute quantitative descriptive component which consisted of completing a questionnaire composed of three instruments: (1) Prenatal Self-Evaluation Questionnaire (Lederman & Weis, 2009), (2) Pregnancy Decision-Making Questionnaire, and (3) Demographic Information Questionnaire. Of all participants, 10 women were asked to partake in the qualitative component which consisted of a 30 to 60 minute open-ended Pregnancy Counseling Interview.

Results

As with the national demographics of women with unintended pregnancies, the women who participated in this study were mostly young, single African American or Latina women of lower socioeconomic status, and lower educational attainment. Their psychosocial profiles indicated decreased maternal adaptation in every psychosocial dimension. Qualitative data from interviews served as an illustration of the psychosocial and demographic profiles, revealing background and the experience of unintended pregnancy for each woman. This data provided insight into the difficulty and complexity of their experience and of pregnancy decision-making. Aspects of counseling such as being welcoming, encouraging, non-judgmental, motherly, and informative were perceived as beneficial to the women. Women also appreciated the combination of counseling with material support and referrals to social, financial, and medical services.

Conclusion

Therapeutic counseling allows women to express themselves and their needs. Their needs can be met by comprehensive care which includes referrals to necessary services and continuous follow-up to reassess and address needs. Promoting maternal psychosocial adaptation can facilitate decision-making, decrease stress and anxiety, and prevent negative outcomes associated with unintended pregnancies.

Women appreciated time for self-exploration and evaluation of alternatives to come to the “right choice” for them (Kjelsvic & Gjengdal, 2011; Singer 2004). The counseling space beneficial to the women was often described as a place free of judgment to allow for exploration of emotional responses to pregnancy to reach a considered and independent decision (Nakamura, 2009; Marck, 1994; Kjelsvic & Gjengdal, 2011; Brien, 1996). Some women looked to separate their own feelings about pregnancy from other feelings to clarify the reasons for her decision (Brien, 1996), to separate “emotions and truth” (Marck, 1994). Women found that in unintended pregnancy, they needed a place to be listened to that was free from critical questions seen as protected time (Marck, 1994; Brien, 1996). In speaking and entering into dialogue with herself-as-pregnant, women were able to inform their actions and found a place for a real or imagined child (Marck, 1994). They found that making statements about themselves and the reality of their situation, they heard their inner feelings (Marck, 1994; Brien, 1996). In listening, caregivers affirm the accounts of women’s experiences as she questions the place of pregnancy in her life and contemplate the unique meaning it has for her (Marck, 1994). Women expressed the desire for someone to simply ask, “What are you going through?” (Marck, 1994).

Other aspects of the caregiver relationship have emerged from phenomenological studies on women’s experience of the decision-making process (Kjelsvic & Gjengdal, 2011). Caregivers-patient relationship must have a structure of authority in which caregivers possess knowledge the patient needs. In this structure, caregivers should be aware of their own power and strive to understand the patient, acting professionally to promote patient autonomy. Knowledge, presence, and a listening attitude act to counterweight the stressful situation (Kjelsvic & Gjengdal, 2011).

Nakamura (2009) focused on the positive effects of pregnancy and acceptance as opposed to the negative effects of reducing physical symptoms to promote women's acceptance of pregnancy. They found that encouraging positive reactions to pregnancy with nursing interventions focused on the comfortable experiences of pregnancy improved maternal psychosocial adaptation. In this way, anxiety was reduced and assisted by continuous counseling throughout pregnancy, beginning in the first trimester (Nakamura, 2009). In a similar study, nursing intervention that included the use of a pregnancy diary and four interviews through pregnancy found improved positive effect on attitudes toward pregnancy with greater effect than expected (Nakamura, 2010). These results reinforce the importance of early entry into care and continuous follow up throughout pregnancy which have been shown to reduce reduced negative maternal and newborn outcomes (Postlethwaite, 2009).

Due to the high rates of unintended pregnancies and the risks of poor maternal adaptation to pregnancy, the minimal amount of research and regulation raises concern. Interventions to target a woman's cognitions and affect about the fetus and becoming a mother and her mood state (Hart, 2006; Nakamura, 2009; Nakamura, 2010) and interventions to promote early entry into prenatal care have high potential for improving outcomes (Postlethwaite, 2009). Caregivers should invest in ways to promote maternal adaptation and support mothers through pregnancy in their needs. Research into the needs of these women may be one of the first steps towards standardized quality of care for the management of unintended pregnancies.

Purpose and Objectives

The purpose of this study is to identify the psychosocial needs and views about desired services and decision making of women with unintended pregnancies who seek the help of pregnancy counselors or caregivers. Women were asked to describe in their own words what

they found helpful and unhelpful in counseling. This information will be used to more clearly define the role of caregivers with women during their experience in hopes of improving maternal and newborn outcomes in unintended pregnancies. The objectives of this study are to (1) explore the psychosocial needs of women experiencing unintended pregnancies; (2) determine what these women seek from caregivers or pregnancy counselors, what services were helpful, and what services were not helpful; and (3) examine the relationship of demographic, situational, and personal factors to the decision-making process in unintended pregnancies.

Background and Significance

Maternal Adaptation to Pregnancy

The experience of pregnancy is a developmental process in which women must take incremental steps to adapt to physical, psychological, and social changes (Lederman & Weis, 2009; Mercer, 1986). During pregnancy, women begin to form their maternal identity which continues after birth (Rubin 1984). They start a process through which they ideally achieve a sense of competence in assuming mothering behaviors while developing an emotional tie to the child and adapting to the idea of motherhood (Mercer, 1986). These changes occur over time as a “psychological process of unfolding that keeps pace with and complements the physical development of the fetus inside” (Lederman & Weis, 2009, p. 31). Research into the experience of pregnancy found that women do not perceive the meaning of their pregnancies or know themselves as mother immediately. Instead, women move toward or away from a vision of themselves as mother over time through the experience of changes between body and self (Marck, 1994).

The formation of maternal identity entails many changes with shifts in self-image, values, priorities, behavior patterns and relationships (Lederman & Weis, 2009; Mercer, 1986). As a

way to frame the concept of psychosocial maternal adaptation to pregnancy, Lederman and Weis (2009) have identified seven personality dimensions: (1) Acceptance of Pregnancy, (2) Identification with Motherhood Role, (3) Relationship with Mother, (4) Relationship with Husband, (5) Preparation in Labor, (6) Fear of Pain, Helplessness, and Loss of Control in Labor, and (7) Fear of Loss of Self-Esteem in Labor. Each of these dimensions can be thought of as a developmental challenge and can carry with it variable amounts of resistance and progress. As women progress, they may experience some conflict or anxiety. When the developmental step is too large to take in 9 months, pregnancy can be accompanied with intense conflict and ambivalence. As ambivalence mounts, a greater level of anxiety results. In this conceptual framework, women's behavioral response to conflict can be identified as adaptive or maladaptive. Adaptive responses progresses women to toward an orientation to motherhood, whereas maladaptive responses can lead to hardship with role clarification (Lederman & Weis, 2009).

According to Manabe et al. (2001), as a woman adapts to the idea of motherhood, she will have positive feelings towards the fetus and be motivated to develop a good relationship between herself and her baby. From a similar perspective, Marck (1994) in a phenomenological study explored the experience of pregnancy and found that women who welcome pregnancy become physically self-aware and grow in sensibility of the fetus. This growth leads to new meaning and new action such as increased self-care behavior, attentiveness to other children and mothers, and estimating financial needs of a child. Adaptation during pregnancy has been tied to better adaptation postpartum (Kiehl and White, 2003), and correlations have been found between prenatal and postnatal maternal self-confidence, feelings towards the neonate, and feelings towards the mother herself (Koniak & Griffin, 1993). Furthermore, women's experiences during pregnancy can also influence delivery and future childbearing (Nakamura, 2009).

When women have difficulty adapting to pregnancy and do not form a maternal identity, they are less likely to develop positive feelings towards the fetus or come to terms with the demands of her role as mother (Lerum et al., 1989). Past studies have tied chronic prenatal stress and anxiety to negative attitudes towards motherhood, postpartum depression, decreased maternal-infant interaction and later development of childhood psychopathology (Hart & McMahan, 2006, Lederman & Weis, 2009). Difficulty during pregnancy is also predictive of increased problems during labor, preterm birth, low birth weight, infant mortality, and increased medical costs (Maxon & Miranda, 2011). Mood problems can begin antenatally, and prevalence is comparable to postpartum depression (Hart & McMahan, 2006).

Unintended and Crisis Pregnancies

Unresolved conflicts and fears during pregnancy are associated with many aspects of a woman's psychosocial health. Such difficulties as marital problems and family discord as well as ambivalence about having a child have been associated with higher levels of fear and anxiety during pregnancy (Lederman & Weis, 2009). Unintended pregnancies have been specifically linked to chronic prenatal anxiety (Lederman & Weis, 2009) and poor psychosocial profiles (Maxon & Miranda, 2011). Women with unwanted pregnancies were found to have the highest depression, perceived stress, and negative paternal support scores, and the lowest self-efficacy and social support scores when compared to women with wanted or mistimed pregnancies (Maxon & Miranda, 2011). Often in unintended pregnancies, women face obstacle to continuing the pregnancy and find the pregnancy to be a great disruption (Marck, 1994). For some women, this may be due to abandonment by the father of the baby, lack of support from parents, loss of housing, loss of employment or career goals, or poor prenatal diagnosis.

Studies that explored the experience of unintended pregnancy found that women described the discovery of pregnancy to be traumatic or shocking (Arhin & Comier, 2007; Ekstrand et al., 2009) and pregnancy as highly stressful in daily life and expected as a burden (Nakamura, 2009). Feelings of depression and inertia were also common (Arhin & Comier, 2007). Poor adaptation and negative feelings towards motherhood were more pronounced in women that felt that the timing was wrong. A phenomenological study on the experience of unintended pregnancies conducted by Marck (1994) found that one woman could not see a present with her child and agonized over her imagined future. The experience has also been described as being embarrassing, overwhelming, and as a crisis situation (O'Reily, 2009; Singer, 2004).

Furthermore, emotional strain associated with unintended pregnancies leads to psychological vulnerability and more primitive coping which then results in anxiety and an inability to function (Coleman et al., 2010). In this way, psychosocial health affects health behaviors, which increases the risk for negative outcomes. The critical period of fetal development in early pregnancy is often missed by the time of diagnosis of an unintended pregnancy resulting in missed opportunities to implement strategies to improve outcomes (Hobbins, 2001). This is exacerbated by embarrassment and poor coping which leads to underutilization of prenatal care (Maputle, 2009). Decreased education regarding physiological changes increases anxiety and poor health practices such as smoking, poor nutrition choices, consumption of teratogenic prescription medication, alcohol and illicit drugs (Postelethwaite et al., 2009; Maputle, 2009). In addition to affecting health behavior, poor psychosocial adaptation has been demonstrated to play a direct role in progress of labor by increasing anxiety and levels of epinephrine during labor, affecting fetal-newborn health (Lederman & Weis, 2009).

Unintended pregnancies that result in birth are directly linked to higher risk for preterm delivery, low birth weight, maternal infant morbidity and mortality and postpartum depression (Maxon & Miranda, 2011; Postelethwaite et al., 2009).

Pregnancy Decision-Making

Decision-making in unintended pregnancies regarding parenting, adoption, or abortion is a major factor in the experiences of some women. Kjelsvic and Gjengdal (2011) explored the experience of unintended pregnancies and the decision making process and found that women had difficulty keeping thoughts about the decision under control. They characterized their experience as tiring, heavy, demanding and one of despair. The legal deadline and knowledge of the continuous development of the fetus increases the stress related to decision-making (Kjelsvic & Gjengdal, 2011).

One study found that female teenagers recognize that there is an “illusion of power” with regard to their reproductive lives (Ekstrand et al., 2009). These women were responsible for contraceptive use but freedom regarding reproductive choices including the right to choose whether or not to continue a pregnancy was limited. The extent to which the decision is the women’s own decision is debatable as women are influenced by attitudes of their partners, family, friends and/or social norms, and is culturally bound (Ekstrand et al., 2009; Bender, 2008). Moral and religious views, fear of regretting the abortion (Bender, 2008) and the bodily subjective feeling of being pregnant also led to the decision for parenting (Kjelsvic & Gjengdal, 2011). Decision-making has also been shown to be affected by interactions with providers who favor either parenting or abortion (Matthews et al., 2007; Ekstrand et al., 2009). The experience has been described as conflict ridden and wrought with ambivalence and contradictory emotions (Bender, 2008; Arhin & Comier, 2007; Ekstrand et al., 2009). Women have also been noted to

struggle with the dual nature of independence, feeling unwanted, lonely and needing support while wanting to make their own decision (Kjelsvic & Gjengdal, 2011).

Regardless of the outcome of the decision for either abortion or parenting, support through the decision-making process has been found to be important. Births resulting from unintended pregnancies, in which chronic prenatal anxiety is left unallayed and maternal adaptation is not successful, are correlated with negative sequelae enumerated above. On the other hand, a quantitative synthesis of research from 1995 to 2009 found that women who had undergone an abortion experienced an 81% increase of mental health problems pertaining to substance abuse, depression, and suicidal behavior (Coleman, 2011). Furthermore, inadequate preabortion counseling and decision conflict was found to be predictive of relationship problems, symptoms of intrusion, avoidance, posttraumatic stress disorder with demographic and situational variables controlled (Coyle, Coleman, & Rue, 2010). The results of past studies are significant and indicate the need for increased support for those with unintended pregnancies.

Affected Population

Unintended pregnancies account for 40 to 60 % of pregnancies in the United States, making it a vital public health issue (Finer & Henshaw, 2006). Being young, single, having lower educational attainment, having other living children, consuming alcohol and being a woman of color were the greatest predictors of having an unintended pregnancy which is reflective of national data (Postlethwaite et al., 2009; Maxon & Miranda, 2011; O' Reilly, 2009; Christensen, 2011). Low income has also been identified as a major predictor of unintended pregnancies (Maxon & Miranda, 2011), and women of low income are more likely to choose an induced abortion (Font-Ribera et al., 2007). Maxon and Miranda (2011) claim that it is unlikely that the high risk psychosocial profile and at risk demographic profiles will change over time and risks

for negative outcomes are often long term and not easily alleviated. This may be true for many cases of unintended pregnancy.

One study did find that despite the demographic predictors, birth outcomes for unintended pregnancy displayed no statistical difference from planned pregnancies included in the study (Postlethwaite et al., 2009). Those with unintended pregnancies and a high-risk demographic profile did not have a higher incidence of preterm delivery, lower birth weights, higher risk neonatal care, or longer hospital stays for the mother and the baby. A possible explanation for this finding is that those with unintended pregnancies were entered into an intervention that included early entry into prenatal care and an integrated perinatal support system with nurses with expertise in high-risk obstetrics available 24 hours a day and seven days a week. Regular telephone contact was also available in many different languages. This care also included home management of hypertension, diabetes, hyperemesis, and non-stress testing. Perinatal substance abuse was also identified and managed on an on-going basis (Postlethwaite et al., 2009). These results of improved birth outcomes support the identification of pregnancy intention and early entrance in to prenatal care with integrated services with high support, providing insight into defining the role of caregivers in promoting maternal adaptation in unintended pregnancies.

Role of Caregivers

The role of the caregiver or health care provider who encounters a woman during her unintended pregnancy plays a major role in her experience. In some instances, providers act as counselors and educators who have an opportunity to promote maternal adaptation and facilitate a decision-making process that leads to the fewest negative outcomes. Nurses have an opportunity to implement interventions to help increase coping ability regarding stress related to

pregnancy. The role of the provider has been named as having a principally important factor in the decision (Ekstrand, 2009; Matthews et al., 2007; Kjelsvic & Gjengdal, 2011). Women experienced discomfort when the caregiver was engaged with a choice they were still ambivalent towards and benefited by recognition and understanding of health care professionals (Kjelsvic & Gjengdal, 2010). The interactions with women during their decision should be nondirective, educational, and be guided by the feelings of the patient, not by the assumptions of the provider (O' Reilly, 2009). The importance of values clarification has been emphasized as a way to help caregivers in providing nonjudgmental counseling (Singer, 2004).

The Title X Family Planning Program put for by the United States government stipulates that the program must offer pregnant women the opportunity to be provided information and counseling about (a) Prenatal care and delivery; (b) Infant care, foster care, or adoption; and (c) Pregnancy termination (Department of Health and Human Services, 2000). Although this program has been in place since 1970, there remains no regulatory body to ensure its practice and no data regarding the practice of options counseling (O' Reilly, 2009). Furthermore, *Healthy People 2010* as with *Health People 2020* (Department of Health and Human Services, 2010) identified goals to reduce unintended pregnancies, and many studies have been published about to prevent their occurrence. However, much less research exists to inform the care of women who actually become pregnant unintentionally (Singer, 2004; O' Reilly, 2009). Quality of care for women with unintended pregnancy is not assured, and evidenced-based practice is rare.

If nursing care is applied to options counseling, the focus then shifts from decision-making to providing a therapeutic and supportive environment. In addition to options counseling, encouraging reflection may be the most appropriate intervention following the discovery of an unintended pregnancy. Since the decision is considered to be life-changing, it is likely best made

over a few days (O' Reilly, 2009). Factors important to the woman, such as input from the father of the baby, family members and other support and spiritual needs should also be addressed (O' Reilly, 2009). For women who are ambivalent, more nuanced counseling may be beneficial (Ekstrand et al., 2009; Kjeslvc & Gjengdal, 2011). As with counseling concerning options, preabortion counseling should consider elements such as adequate amount of time for counseling, quality of training for counselors, comprehensiveness and accuracy of the information should be explored more in research (Coyle, Coleman, & Rue, 2010). In discussing parenthood, the topic of discussion for this study, women of low socioeconomic status should be encouraged to obtain social services provided by the government or by private agencies (O' Reilly, 2009).

Methods

Design

A mixed-method design with a quantitative descriptive component and a qualitative descriptive component was used. All participants were included in the 15 to 35 minute quantitative descriptive component which consisted of completing a questionnaire composed of three instruments: (1) Prenatal Self-Evaluation Questionnaire (Lederman & Weis, 2009), (2) Pregnancy Decision-Making Questionnaire, and (3) Demographic Information Questionnaire. Of all participants, 10 women were asked to partake in the qualitative component which consisted of a 30 to 60 minute open-ended Pregnancy Counseling Interview. The two parts of this study took place together or in two sessions based on participants' preference. Details of materials and methods are described below.

Setting and Sample

Data were collected over the course of several months and took place at two locations of Pregnancy Help. Pregnancy Help are pregnancy resource centers located in Brighton and Natick, MA. near Boston. Resources and services provided by Pregnancy Help includes pregnancy testing; limited ultrasound; supportive counseling; information and referrals to medical and social services; education, career and housing information; ongoing support, and material assistance. This resource center serves women ranging from teenage years to women over 40, women with a wide range of socioeconomic, educational, and ethnic/racial backgrounds such as Caucasian, African-American, Haitian, Brazilian, and women who are immigrants from other countries. The population served by Pregnancy Help is mostly of low socioeconomic status. On average, 17 women in their third trimester make an appointment at Pregnancy Help each month. Pregnancy Help also follows about 40 postpartum women on an ongoing basis at one time.

Pregnancy Help is affiliated with the Roman Catholic Archdiocese of Boston. Philosophy of the staff at Pregnancy Help is to provide support and encourage openness with all of their clients in order to establish therapeutic relationships. They strive in their manner to be professional and non-judgmental while being honest and forthright in expressing their lack of abortion services and abortion referrals. Because the conduct of the nurses at Pregnancy Help, “unpopular views” associated with Catholic teaching such as desire for abortion is usually openly discussed by clients in the privacy of counseling. Clients are often unaware of the organization’s religious affiliation.

A sample size of 23 was obtained for the quantitative descriptive component. A sample size of 10 was obtained for the qualitative descriptive component who were selected based on their availability and willingness to participate. Inclusion criteria are as follows: women 18 years

and older who have experienced an unintended pregnancy in their most recent pregnancy, chose to continue their pregnancy, and sought services from Pregnancy Help. These women were contacted in their third trimester of pregnancy and up to 2 years postpartum. Including women in their third trimester and up to 2 years postpartum will allow for a range of perspectives for evaluation of the services received from Pregnancy Help. This approach also allowed for a greater sample size. Women in their first and second trimester were not asked to participate in the study in order to avoid approaching women at a time when they may be experiencing high levels of anxiety. Because the PSEQ is available in English and not in other languages relevant to the population, women who did not speak English were excluded from this study. Because unintended pregnancies have been experienced by women of all childbearing ages, a wide spectrum of race, level of education, socioeconomic status, and marital status (Maxon & Miranda, 2011), no other exclusion criteria were employed.

Procedures

All procedures pertaining to this study were reviewed and approved by the Boston College Institutional Review Board. Data were collected by the principal investigator and three co-investigators who are nursing staff at Pregnancy Help, referred to as “researcher.” Prospective participants were contacted on the telephone by the researchers who are nursing staff of Pregnancy Help. A telephone script, approved by the IRB, to invite participants was used as a guide. Contacting clients by telephone followed the usual and preferred procedures of Pregnancy Help for requesting clients to come into the office. The clients were invited to participate in an optional study during their next scheduled appointment. Letters were not used because many clients’ lack stable housing and addresses are not collected by Pregnancy Help. All data collection took place in quite, private offices at Pregnancy Help.

If participants expressed any difficulty understanding any part of the interview or questionnaires, the researcher provided assistance. A few risks were acknowledged in the development of this study. For example, some women may feel uncomfortable when answering questions about their experience. The likelihood of discomfort was estimated to be low because participants were allowed to stop at any time and had access to nursing staff. The usual procedures of Pregnancy Help were followed in the case of acute emotional distress. Participants were assessed for discomfort, and risks were reduced by using informed consent. If the participant experienced discomfort, nurses of Pregnancy Help were present at all times to provide counsel or comfort to the participant appropriately, according to the participants needs based on professional and ethical standards of nursing care. In the case of an emergency, nurses were prepared to make appropriate mental health referrals. This study was supervised by a faculty advisor who is an advanced practice psychiatric mental-health nurse. Regular debriefing sessions took place throughout the data collection period.

Informed consent and confidentiality. The researcher collecting data performed the informed consent procedure. When clients came into Pregnancy Help, they were provided with the research consent form. The purpose, procedures, and participant rights were explained by the researcher, and participants' understanding was assessed by asking them about the procedures and whether they fully understood. Participants were encouraged to ask questions about the study.

No identifiable data were collected except for the participant's name on the consent form. Participants were assigned an identification number, starting with the number "1." Data from the interviews are presented below without names. Hard copies of the questionnaire, transcriptions, and consent forms were stored in designated locked file cabinets at Pregnancy Help; consent forms were locked separately. Only the researchers will have access to the research materials

containing identification. Recordings and transcriptions of the interviews were stored on a password protected laptop and were de-identified at the completion of the study.

Measures

Lederman's prenatal self-evaluation questionnaire. The Prenatal Self-Evaluation Questionnaire (PSEQ) is a self-administered questionnaire used to assess maternal adaptation by identifying the level of difficulty in one or more of the seven major psychosocial dimensions identified by Lederman and Weis (2009). The PSEQ contains a total of 79 statements that assess the following seven major psychosocial dimensions: (1) Acceptance of Pregnancy, (2) Identification with Motherhood Role, (3) Relationship with Mother, (4) Relationship with Husband, (5) Preparation in Labor, (6) Fear of Pain, Helplessness, and Loss of Control in Labor, and (7) Fear of Loss of Self-Esteem in Labor. Each statement is an example of what women have said about their pregnancies. The participants read each statement and indicated the extent to which the statement reflects their feelings by marking one of the four responses: "Very Much So," "Moderately So," "Somewhat So," or "Not at All." In this study, the PSEQ was administered one time to women in their third trimester or within 2 years postpartum. Participants were asked to recall their early pregnancy experience and the discovery of their pregnancy.

Reliability of the PSEQ has been well supported. Cronbach's alphas for subscales ranged from 0.75 to 0.92 (Lederman & Weis, 2009). The validity of psychosocial dimensions in maternal adaptation has also been well supported by research over the past 30 years. Assessing the psychosocial dimensions using the PSEQ has yielded statistically reliable results with many different populations including lower socioeconomic, multiethnic, single or partnered women, employed and unemployed women, and women in their teenage years to women over 40 years-

old. Results have been replicated in subsequent studies and remain relevant to the present time. Research has also shown that prenatal psychosocial dimensions correlate with and are predictive of progress in labor, health status of the fetus and newborn, and the woman's postpartum adaptation to her motherhood role. Scores from the PSEQ was used to measure psychosocial needs.

Pregnancy decision-making questionnaire. The Pregnancy Decision-Making Questionnaire is an original self-administered questionnaire developed by the researchers because a more appropriate measure was not identified in the literature. Items were reviewed by a panel of experts who agreed that the items had adequate face validity. This instrument was used to gather more focused information about what factors facilitated the women's decision making and the degree to which abortion was considered. Items included were chosen based on literature review regarding factors that affected pregnancy decision-making. These items include support from the father of the baby, support from family or friend, having financial resources, availability of stable housing, having time to consider the options of abortion, keeping the pregnancy, parenting and adoption, talking to someone about the options, information that relieved fears about the baby's health or mother's health, moral or religious views, pressure from others, fear of others thinking of them badly if they got an abortion, fear of regretting the abortion (Bender, 2008; Montgomery et al., 2010; Maputle, 2009; Matthews et al., 2007; Kjelsvic & Gjengdal, 2010; Arhin & Comier, 2001; Marck 1994). Women were asked to consider each factor and indicate the degree of importance it had in her decision on a scale from 0 to 4. The final question in the instrument asks the woman to indicate the degree to which abortion was considered. The Pregnancy Decision-Making Questionnaire was administered after the completion of the PSEQ. Because this is an untested instrument, no score will be calculated.

Rather, individual items will be used in analysis. Given the limitations and exploratory nature of this instrument, items were used individually and therefore a cumulative score was not used in analysis. We acknowledge that additional instrument testing is needed.

Demographic information collection. Participants' age, race/ethnicity, education, socioeconomic level, relationship status, parity, number of other children, delivery date, and gestational age at the time she discovered her pregnancy will be recorded on the Demographic Information Questionnaire by the researcher. Level of education was obtained by assessing the highest degree/diploma or amount of education earned by the participant. Socioeconomic level was obtained by assessing the type of financial aid received by the participant such as Women, Infants and Children (WIC), Mass Health, Transitional Aid for Families with Dependent Children (TAFDC), food stamps, or other financial assistance. This information was used to describe the sample and for analysis.

Pregnancy counseling interview. During the Pregnancy Counseling Interview, the researcher interviewed participants using an interview guide developed by the researchers. The interview consisted of open-ended questions that addressed the quality of services to the participants from pregnancy counselors or caregivers. Participants were also asked to describe what was most important in their decision about their pregnancy.

During the interview, participants were encouraged to express all their views freely and honestly. For example, participants were able to express any negative feelings about their decision to continue their pregnancies or any negative views about the services they received from Pregnancy Help. Participants were interviewed only by the principal investigator or the co-investigator most unfamiliar with the participant. In other words, participants were interviewed by the researcher/agency nurse who did not previously provide counseling or had the fewest

interactions with the participant in order for the participant to feel freer to express negative views or criticism. This approach is an advantage of having an unfamiliar investigator, such as the principal investigator who is not a nurse or counselor employed by Pregnancy Help. Furthermore, researchers reassured participants that answers will not affect or diminish the researchers' or nurses' positive regard for the participant or any services participants receive from Pregnancy Help.

Prior to conducting interviews, the researcher received instruction and practice by the faculty advisor and the nurses. Mock interviews were conducted for practice. During interviews, nurses were available nearby to help troubleshoot and in the case the participant experienced discomfort.

Data Analysis

Interviews were audio-recorded and transcribed verbatim by the principal investigator. Data from the interviews were analyzed using latent content analysis (Graneheim, 2004). Transcriptions were reviewed several times to gather a sense of the whole. Thereafter, the material was condensed and divided into meaning units which were labeled with a code. Codes were sorted into categories based on their differences and similarities. Emerging categories were checked with the original text to ensure accuracy. A process of reflection and discussion took place among researchers to draw conclusions about how to sort codes. The analysis addressed aim 2.

Descriptive statistics were used to describe the sample and psychosocial needs to address aim 1. Correlation analysis was used to examine relationships among study variables, and Chi Square analysis and Fisher's Exact Test (for small numbers) was used for comparison of nominal categories to address aim 3.

Investigator bias was reduced by triangulating the ideas and interpretation of multiple researchers and the faculty advisor. Interpretation of qualitative data was reviewed and scrutinized for instances of distortion by the research team. Researchers made a conscious effort to conduct interviews and interpret data for accuracy. Furthermore, researchers continuously reflected on personal biases and possible effects on data collection, interpretation, and data analysis, particularly in qualitative interviewing. Issues regarding investigator bias were discussed during regular debriefing with the research team.

Results

Demographic Characteristics

After applying the inclusion criteria, a sample of 23 total participants was included in the study. Of the 23 participants, 10 were included in both the qualitative and quantitative descriptive components. Table 1 displays the demographic characteristics of the sample. The mean age of all participants was 23.8 years. At the time of the study, 15 (65%) of the participants were in their third trimester. Thirteen women (57%) were experiencing their first pregnancy, and all participants discovered their pregnancy during the first trimester. The remainder of the sample had one or two other children or had previous abortions. A large majority of the women (87%) graduated from high school, and 13% had less than high school education. Ninety-six percent were considered as low socioeconomic status, and a large majority of the sample was single African American or Latina.

Table 1. Demographic Characteristics; Sample Size n=23

	Number	Percentage
Age		
18-20	9	39
21-15	5	22
26-30	8	35
31+	1	4

Mean age	23.8	
Race		
African American	10	43
Latina	7	30
Haitian	4	17
Caucasian	1	4
Other	1	4
Gestational age at discovery of pregnancy		
2-4 weeks	7	30
5-8 weeks	12	52
9-12 weeks	4	17
Average gestational age	6.3	
Stage at interview		
Third trimester	15	65
0 to 12 months postpartum	2	9
13 to 24 months postpartum	6	26
Education level		
Less than high school	3	13
High school diploma	18	78
Bachelor's degree	2	9
Socioeconomic status		
Low	22	96
Mid or High	1	4
Relationship status		
Single	15	65
Separated	3	13
Married	4	17
Cohabiting	1	4
Parity		
Primiparous	13	57
Multiparous	10	43

Quantitative Results

Prenatal self-evaluation questionnaire. Scores from the PSEQ were compared to results from a previous study with a random sample of 119 primigravidas and multigravidas (Lederman & Weis, 2009). Table 2 shows PSEQ results from this study alongside results from the previous study for comparison and identification of psychosocial needs. Women from the present study displayed higher total scores and higher scores for each of the seven subscales,

indicating increased difficulties with each of the seven dimensions. Acceptance of Pregnancy and Relationship with Husband had the greatest difference when compared to earlier results.

Table 3. Comparison of PSEQ Results

Scale	Results from this study (n=23)	Results from previous study (n=119)
Acceptance of pregnancy	30.6	22.3
Identification with motherhood role	24.6	20.0
Relationship with mother	21.7	17.3
Relationship with husband	27.5	16.2
Preparation for labor	22.8	15.9
Fear of pain, helplessness and loss of control in labor	21.2	18.2
Concern for well-being of self and baby in labor	19.6	16.5
Total score	168.0	126.4

Pregnancy decision-making questionnaire. Women in this study ranked availability of stable housing, having information that relieved fears about the baby's health, and fear of regretting the abortion as the most important factors in decision-making to carry their pregnancy to term. These factors were each chosen by 35% of the participants as the most important factor. Fear that others would think badly of the women if they got an abortion was indicated by 70% of the women as the least important factor in decision-making. In this sample, 48% considered abortion but not seriously or only briefly, 30% never considered abortion, 9% seriously considered abortion and sought information, and 13% seriously considered abortion and contacted an abortion provider.

Intercorrelations among the variables. Correlation analysis was used to examine relationships among the subscales, demographic variables, and factors in decision making. Table 3 shows the intercorrelation coefficients among the PSEQ subscales. (A key for abbreviations is provided below Table 3.) Correlation coefficients ranged from 0.058 to 0.746. Acceptance of

Pregnancy was found to be highly correlated with Concern for Well-Being of Self and Baby in Labor with the highest intercorrelational coefficient of 0.746. Preparation for Labor was found to be highly correlated with Fear of Pain, Helplessness, and Loss of Control in Labor.

Identification with Motherhood Role and Acceptance of Pregnancy were also highly correlated.

Table 3. Intercorrelations among PSEQ Subscales

		Correlations						
		WELLBE	ACCPREG	IDMORO	PREPLAB	HELPL	RELMOTH	RELHUS
WELLBE	Pearson Correlation	1	.746**	.439*	.379	.359	.191	.196
	Sig. (2-tailed)		.000	.036	.074	.093	.384	.369
	N	23	23	23	23	23	23	23
ACCPREG	Pearson Correlation	.746**	1	.634**	.608**	.541**	.386	.193
	Sig. (2-tailed)	.000		.001	.002	.008	.069	.377
	N	23	23	23	23	23	23	23
IDMORO	Pearson Correlation	.439*	.634**	1	.348	.320	.123	.225
	Sig. (2-tailed)	.036	.001		.104	.136	.575	.302
	N	23	23	23	23	23	23	23
PREPLAB	Pearson Correlation	.379	.608**	.348	1	.694**	.247	-.034
	Sig. (2-tailed)	.074	.002	.104		.000	.255	.877
	N	23	23	23	23	23	23	23
HELPL	Pearson Correlation	.359	.541**	.320	.694**	1	.236	-.058
	Sig. (2-tailed)	.093	.008	.136	.000		.277	.794
	N	23	23	23	23	23	23	23
RELMOTH	Pearson Correlation	.191	.386	.123	.247	.236	1	.096
	Sig. (2-tailed)	.384	.069	.575	.255	.277		.663
	N	23	23	23	23	23	23	23
RELHUS	Pearson Correlation	.196	.193	.225	-.034	-.058	.096	1
	Sig. (2-tailed)	.369	.377	.302	.877	.794	.663	
	N	23	23	23	23	23	23	23

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

ACCPREG	Acceptance of pregnancy
IDMORO	Identification with motherhood role
RELMOTH	Relationship with mother
RELHUS	Relationship with husband
PREPLAB	Preparation for labor
HELPL	Fear of pain, helplessness and loss of control in labor
WELLBE	Concern for well-being of self and baby in labor

Significant intercorrelations were found among other study variables, some of which were predictable. For example, Relationship with Husband in the PSEQ was found to be highly correlated with relationship status. Similarly, Relationship with Husband in the PSEQ was found to be highly correlated with those who indicated support of father of the baby as an important factor in decision-making. Also, those who indicated that having information about the baby's health as an important factor had a tendency to indicate having information about her own health as important.

Other results were less predictable. In decision making, indicating financial or material resources as an important factor in pregnancy decision-making highly correlated with indicating education about options and having information about the baby's health and the mother's health. Indicating financial resources as an important factor also highly correlated with Concern for Well-Being of Self and Baby in Labor in the PSEQ. Indicating having stable housing as an important factor in decision-making was found to be highly correlated with indicating having information about the baby's health. No significant correlation existed between PSEQ scores and consideration of abortion. Consideration of abortion was found to be moderately correlated with indicating availability of stable housing and talking with someone about the options of parenting, abortion, and adoption as important factors in pregnancy decision-making. No significant correlations were found among any study variables and stage at which the women participated in the study.

Qualitative Results

Three main themes emerged from content analysis of 10 interviews. Descriptions and quotes from interviews will be presented under these three themes and subsequent categories: Women's needs in pregnancy, Quality of counseling, and Pregnancy decision-making. The

women's needs were not always discussed directly by the women; however, certain needs became clear and were repeated by the women. Thus data saturation occurred during the interview process. Participants described pregnancy counseling and the services they received which addressed some of their needs. Decision making was facilitated by whether or not those needs were addressed and by other personal factors. Each of the three themes was closely connected, and factors were discussed and can be thought of as facilitators or barriers to maternal adaptation.

Women's needs in pregnancy. Women were asked directly about their perceived needs at the discovery of their pregnancy. This inquiry led to discussions of the most pronounced hardships. Descriptions of other needs arose in their description about counseling or decision making. In analysis, these needs were divided into four categories: (1) Financial need, (2) Emotional need, (3) Social support, and (4) Difficult life situation.

Financial need. As mentioned above, 96% of the women who participated in this study were of low socioeconomic status. For many of the women financial need was profound. They struggled with homelessness or impending homelessness or lack of food and clothing for themselves and their child(ren). Many lacked employment or suffered a recent loss of employment. Women described these basic necessities as monumental in their experience which became more pronounced with pregnancy. Financial need was a salient factor in increasing the level of stress and anxiety during pregnancy. For example, in her description of services she received from Pregnancy help, one woman stated,

“They made sure I had food to eat... make sure my kids had their clothes... beds to sleep in, necessity things. That's what they helped me out with... it's not the big things you need in life. It's really the small things.”

Financial need and emotional needs are very closely linked. For example, one woman described the relief and encouragement of having material resources from her mother:

“[My mom] just encourages me, even when I have nothing, no food, she’ll like go to the food pantry and she’ll bring us food, stuff like that. She always tries to make me feel good, and she’ll cook for me.”

Emotional need. Many women expressed a need for someone to talk to about their pregnancy. Many women described the discovery of pregnancy as shocking and confusing. They also expressed fears regarding the pregnancy and not knowing “*what to do next.*” For some, the experience of pregnancy was shameful and lonely. Many expressed the need for reassurance about the future and about their abilities to be a mother. For example one woman stated that she needed, “*Someone to believe that I can do good, that I’ll be okay, that I can do better.*”

Social support. Women expressed their need for social support at many points throughout the interview. They either described their lack of social support or how having social support helped them through their difficulties. Most women lacked support from the father of the baby which was a prominent source of stress during pregnancy, especially during early pregnancy. Many women described the father of the baby as being unavailable, describing them as being “*never supportive and neither way, not even emotional or anything... very selfish and hardness constantly.*” Other women described negative reactions of the father of the baby,

“When I told him...he tried to play it as if his life was going to be ruined by me keeping this baby. And he was just uh... get rid of it or he doesn’t want nothing to do with it... And he just kept trying to push the situation for about 3 months and to the point that now we don’t talk”

“Cause my husband... was in denial so he left me with my two kids and me pregnant.”

Support from the participant's mother was also prominent in discussions regarding social support during pregnancy. Many women found that their mother was a great source of on-going strength and encouragement. When women lacked this motherly support, they sought others to fulfill that role. They expressed the need for someone who could relate to their experience of being pregnant. Lack of social support was distressful,

"It was very very dark times, unfortunately. My mom was very depressed over this... it was hard for my father to support me when he saw my mother was so upset. It was very difficult for my sister with a mother who won't get out of bed, who's threatening suicide... said I was destroying the family. I got calls from my father saying, "If your mother takes her own life, it's your fault. I will never speak to you again" It was bad. "Don't think you can come here and live. We're not going to support you."

Difficult life situation. Several of the women described difficult life situations that arose during pregnancy or situations that were exacerbated by the pregnancy. A few of the women were victims of domestic violence either in their current relationship or in the past. They described psychological and psychiatric mental health issues such as post-traumatic stress disorder, depression, and suicidal ideation. One woman stated, *"I went to the hospital for depression because I was just so sad 'cause there was a whole bunch of stuff going on with my marriage, my daughter, and it was just really hard."* Others described experienced a sudden loss of job or housing after the pregnancy which produced chronic stress and preoccupation with finances throughout the pregnancy. Issues such as infidelity were on-going, whereas abandonment for some occurred after pregnancy. For some women, health issues of the baby or their own health issues such as twin-to-twin transfusion, cystic fibrosis, spinal injury or ovarian cysts led to increased stress and confusion about pregnancy outcomes and decision-making.

Quality of counseling. Insight into the role of caregivers was gained through the description of what services women sought during their early pregnancy and what was helpful in counseling. In every case, they described the services they received from Pregnancy Help as positive and helpful in their pregnancy experience. More specifically, they found the staff welcoming, generous, informative, and non-judgmental. This in turn led to reassurance about the future and about motherhood. As women described the counseling they received, many qualities of counseling were described and subsequently divided into seven categories. These seven identified aspects are presented in Table 4 with brief descriptions and quotes from the women for each category.

Table 4. Description and Quotes of the Helpful Aspects of Counseling

Aspect	Direct quotes from interviews
<p><i>Welcoming and giving all that is possible.</i> The women were comforted by the perception that they were welcome to ask for help and to express themselves. They appreciated the effort of the nurses and staff to provide material and emotional help. More specifically, they perceived that the staff was doing their best. This provided hope and relief of loneliness for some women.</p>	<p>“I can drop in and say, ‘Hi.’ So you know, it makes me feel welcome, wanted, no limitations, no restrictions... They don’t offend me in any kind of way. It just makes me feel like I’m a good person.”</p> <p>“She is doing as much as she can do. You know she’s doing all the things she can do for me...She’s like giving and giving.”</p> <p>“That gave me a relief, like wow, I have someone out there that I can go to that can help me.”</p> <p>“Mary made me feel comfortable overall completely ’cause... I just explained my situation to her and she had compassion... that made me feel like all hope wasn’t lost.”</p> <p>“They welcome you with open arms... she didn’t know me, and she was willing to help me, no judgment, not too many questions asked. She was there for me.”</p>

	<p>“Don’t feel like you came here last week and you can’t come back. ‘Just make sure you call whatever you need.’ That really made me feel really comfortable.”</p>
<p>Relationship formation and continuous follow-up. Women noticed that the nurses were attentive to her situation as it relates to the rest of her life. They appreciated the holistic aspect of the nurses manner and continuous follow-up over the phone even without appointment. This enhanced the formation of a therapeutic relationship which developed over time.</p>	<p>“She’s always asking me and even though like I have not appointment or nothing she’s calling me, just asked to me if I’m fine or not or what’s going on with me and my baby as well.”</p> <p>“She really wants to know what’s going on, my health, my pregnancy, my financial condition, all of those things related to me.”</p> <p>“If I have a relationship with somebody and I like the person, I trust the person, I always like to stay with that person, and I’m not very easy to open with any kind of person.”</p>
<p>Non-judgmental listening. Listening was named repeatedly by several of the women as an important aspect of counseling. They appreciated the time for expressing themselves openly in a non-judgmental space.</p>	<p>“She wasn’t judgmental at all and that really made the difference.”</p> <p>“If I needed to cry and I would call and talk and cry. If I was stressed they would be there for me and to listen to me.”</p> <p>“They listen to you a lot. They let you have the floor to vent to say what you have to say, give you their opinions and try to help others. They don’t really judge you at all”</p> <p>“She would listen and listen, not too much, she didn’t tell me what to do or nothing like that.”</p>
<p>Realistic encouragement. Women desired reassurance and encouragement. They appreciated the positive regard and positive outlook that they encountered in counseling. Also important in encouragement is that it is grounded in realistic expectations of the responsibilities of parenthood.</p>	<p>“It was nice to talk to Mary, someone to say you that can do this... Just coming here and hearing that... I <i>can</i> take care of my child and that I <i>do</i> have something to offer this child. It was the most important thing”</p> <p>“Just to hear the encouragement and to do the good things... to reassure from her the belief that we can do good and better for our babies”</p> <p>“Mary makes sure that I know... [My mom] she wants me to feel it. Like okay, you are having kids, these are your children, take care of your children”</p>

	<p>“I wanna hear, even though it was painful, to hear the truth of the facts, so that was what I was looking for.”</p>
<p>Motherly support. Many women spoke of the desire for motherly support. Those who had supportive mothers greatly appreciated relationship with their mother and the shared experience of pregnancy and motherhood. Those who did not have support from their own mothers sought it from others or were grateful to find it in counseling.</p>	<p>“Sometimes, I would leave and feel totally different than how I came in. I’ll be happy, or sometimes I needed that hug or just that person to talk to that knew I was comfortable with, who’s a woman, who knows women.”</p> <p>“I didn’t have that kind of motherly connection and that’s what I was looking for too as well. I could ask her advice because I didn’t have anyone else to go to. None of my friends had had babies.”</p> <p>“She has... a mother’s touch.. She’s one of those go-to females that you can talk to... she’s really kind-hearted, really gentle, she’s there for you.”</p>
<p>Informative. Many women needed information as well as emotional support. Having a authoritative and reliable source of information throughout the pregnancy provided relief for concerns regarding the mother’s or the baby’s health. In the interviews, health information and information about physiological change was discussed as important more frequently than information regarding the options of parenting, abortion, or adoption.</p>	<p>“She’s also a nurse as well. She knows what you’re going through with the pregnancy... You’re at home and you’re like “Oh okay that feels funny, is that normal, like normal feeling. Is this going to be a normal pregnancy?” She just kind of helped across the board with everything.”</p> <p>“I was looking for abortion because I thought that my physical condition was not so strong for keeping the baby, and when I came here, Mary told me about all those things.”</p> <p>“She was always there to show me the books, the papers, give me pamphlets, call this number, or make sure check in with your midwife. She used to always show me, “This is how your baby looks like, and this is how small it is”... It’s reassuring when you’re pregnant to always have someone there like that”</p> <p>“In the moment I have the confuse my pregnancy is coming out because... the doctor he say he wanted to do abortion for my twin because I have twin-by-twin transfusion. She</p>

	<p>give me the pathway in the moment I need. She give me orientation about my pregnancy.”</p>
<p>Ensuring means for the future. Providing support through counseling and listening may not be enough. Financial, material, and social support provided in conjunction with counseling services provided women with the concrete means for continuing the pregnancy and raising the infant after delivery. Referrals for social, medical, and legal resources were also helpful for many women who were not knowledgeable about how to access public or private resources.</p>	<p>“People that wanted to listen but weren’t people that could really help”</p> <p>“It’s not just okay I’m going to get the abortion, I’m going to keep the baby. It’s kind of all that follows afterwards. And you need to have that support lined up and that’s what I think is so amazing about this organization”</p> <p>“I just got on mass health. I don’t know where I would have started when you don’t know where the resources are especially with the newborn baby now. You know I don’t have a car. It’s hard for me to track down, I don’t have the internet... They sometimes there’s long lines, and you don’t have the right paper work... It’s ten times harder with a baby.”</p>

Some women also described their negative encounters with healthcare providers during the early stages of their pregnancy. In their experience, a few women found that some healthcare providers at other agencies heavily encouraged abortion before they made their decision about the pregnancy. This led the women to conclude that the healthcare provider had negative perceptions about their ability to care for their children and their situation. For example one woman expressed,

“I don’t know why but she thought it was a bad idea of me thinking of keeping the baby. Because I explained the relationship between him and I... I felt like she kind of criticized me... She had her own opinion of things.”

Factors in decision-making. Women were asked directly to describe the three most important factors in their decision-making for the continuation of their pregnancy. Many women shared similarities concerning this processes. These factors were divided into six categories: (1)

Financial or material support, (2) Social support, (3) Personal resilience, (4) Acknowledgment of the baby, (5) Acknowledgment of the baby, and (6) Fear of regretting the abortion.

Financial or material support. For most of the women, having the financial or material means to support her pregnancy and her future child facilitated the decision to continue the pregnancy. One woman expressed clearly, “[Pregnancy Help] provided some financial support and like getting insurance, and after having the baby also they are giving lots of things, and we think we can keep the baby.”

Social support. As mentioned above, having reassurance of her abilities to become a mother and social support from others was a positive part of the experience of pregnancy for most of the women. This often facilitated decision making.

Personal resilience. In the experience of pregnancy, many women found personal strength to overcome the challenges of pregnancy. They spoke of taking responsibility or consequences for their actions and led to the decision to continue the pregnancy. After becoming pregnant, some women began to form positive goals regarding their future and their role as mother. “I mainly listened to myself... like how I could picture myself, really what my goals that I want to do, how really it would make me feel about myself and what I want to do for her,” stated one woman. At the time of the interview, some women viewed pregnancy as a positive experience. For example, one woman said, “I’m glad it happened. It kind of changed my life a lot, and in good ways because now I’m pushing myself to go to school, to better myself, and to give the best for me and for the best of my baby.”

Acknowledgement of the baby. For some women, acknowledgment of the growing fetus facilitated the decision-making process. For example, one woman stated, “The time I have the baby in the belly. I feel different. I wanna keep it because I want to say because I was thinking

about one inside is the body. I want to finish my pregnancy.” In a similar way, one woman who was ambivalent towards abortion and decided to continue the pregnancy after acknowledging the growing fetus stated, *“It’s like 22 weeks. It’s crazy. That’s a few weeks from being viable, like a baby needing ICU care.”* Women who had other children expressed that their experiences of being a mother led to anticipation for the baby. *“You know, I wanted to see the baby...I got excited about the baby and having another.”*

God or religious beliefs. For some women, God or religious beliefs led to the decision to continue the pregnancy. They considered the children to be a “blessing” and accepted the pregnancy. One woman expressed, *“God gave me a gift for a reason. I’m not going to take it away... I’m gonna have my kids regardless if I’m struggling or if I’m rich. Like this is something that is a blessing.”* Participants generally acknowledged that the situation was not ideal; however, their belief in God shaped their decision-making process. In a comment that aptly reflected others’ views, one woman stated *“It’s something you should be happy about regardless of how you get there, even if it will be tough... You’ll be having a hard time and your baby will smile at you and it’ll be like everything’s going fine, so I think that was really blessed.”*

Fear of regretting the abortion. Fear of regretting the abortion was expressed by a few women. One woman who had a previous abortion expressed that her past experience shaped her current decision. *“I was pregnant and I had an abortion... it’s something until this day I regret it. You keep saying, ‘How would that child be?’ If it was a girl, a boy... that’s why abortion was never for me.”*

Discussion

The purpose of this study was to identify the psychosocial needs of women with unintended pregnancies and to explore their views about desired services and decision making.

The experience of unintended pregnancy as well as demographic and psychosocial profiles of women with unintended pregnancies has been examined in past research. Overall, the results of this study reflect the results of past research in finding that women with unintended pregnancies have increased psychological and social needs. Additionally, these results provide insight into the contexts of unintended pregnancies by looking into the psychological and social aspects of women's experience. Unlike much of past research, this study focuses on concerns of women with unintended pregnancies and promotion of maternal following the discovery of an unintended pregnancy as opposed to prevention. Published studies about interventions for promoting adaptation to pregnancy do not specifically address unintended pregnancies (Hart & McMahon, 2006; Nakamura, 2009; Nakamura, 2010; Postlethwaite, 2009). As mentioned above, the aim of promoting maternal adaptation to pregnancy is to reduce the negative maternal and newborn outcomes that are associated with unintended pregnancies. Exploring the needs of these women helped define the role of caregivers who encounter women with unintended pregnancies, which can occur in healthcare settings. Furthermore, this research is an initial step towards higher quality of care for the management of unintended pregnancies.

Pregnancy decision-making is complicated and is affected by many factors such as social support and financial stability. Those who chose parenting and those who chose abortion were both strongly influenced by reactions of their parents, partners, and peers (Ekstrand et al., 2009; Maputle, 2009; Bender, 2008). Positive support from the mother has been named as a pivotal factor in many studies for those who carried the pregnancy to term (Maputle, 2009; Arhin & Comier, 2007; Marck, 1994), whereas a mother's negative reaction towards continuing the pregnancy led women to choose termination (Ekstrand et al., 2009). These findings also correspond with Lederman and Weis' (2009) conception of maternal psychosocial adaptation

which includes Relationship with Mother as one of the seven dimensions. Finances is a salient factor in pregnancy planning (Montgomery et al., 2010), and economic hardship was identified as one of the main reasons for pregnancy termination (Ekstrand, 2009; Bender, 2008; Marck, 1994).

An advantage of using a mixed-method design is that it allows for the juxtaposition of both quantitative and qualitative data. The quantitative data provided a way to identify and measure psychosocial needs, while the qualitative data served as an illustration of the psychosocial and demographic profiles developed from the quantitative data. As a supplement to the quantitative data, the qualitative data revealed the background and the experience of unintended pregnancy for each woman.

Similar to the national profile for women with unintended pregnancies, the women who participated in this study were mostly young, single African American or Latina women of lower socioeconomic status, and lower educational attainment (Maxon & Miranda, 2011; O'Reilly, 2009; Christensen, 2011). In this study, the participants' psychosocial profiles indicated decreased maternal adaptation in every psychosocial dimension, based on published norms, suggesting increased struggle with the formation of a maternal identity. This profile also likely puts both the mother and the newborn at risk for physical and psychological sequelae. The social, psychological, and situational contexts revealed by qualitative interviews were, in some cases, profoundly difficult. The potential vulnerability of women who experience unintended pregnancy is notable as it was often characterized in the participants' words by shock, anxiety, stress, depression, trauma, domestic violence, abandonment, sudden loss of job or housing and other underlying issues. This data also provide insight into the difficulty and complexity of pregnancy decision-making.

Study Limitations

A limitation of this study is the small sample size which is insufficient for many quantitative analyses. The quantitative results of this study are not definitive, but only provide an idea of the psychosocial needs of this population. Furthermore, this study was limited by the availability of clients and the setting of the study. The sample's characteristics although reflective of national data regarding women with unintended pregnancies, lacked variability and included only the population served by Pregnancy Help. This setting, as a pregnancy resource center that does not provide abortion services or abortion referrals, may be less frequented by those who consider abortion very seriously. Although discussion about abortion and adoption occurs in counseling at Pregnancy Help, all women in this study chose parenting; therefore, the degree to which the results about the decision-making process can be considered representative is highly limited.

Results of this study were influenced by recall bias since women were asked to reflect back about their experience. For example, the PSEQ was administered in some cases to postpartum women and women in their third trimester to address psychosocial needs of early pregnancy. During interviews, women were asked to describe the services that they sought from Pregnancy Help and what was helpful or unhelpful. The results of this data may be different if women were approached at the time of the discovery of pregnancy; however, by reflecting on the experience of services of Pregnancy Help, the women may have had better understanding on the qualities in counseling that were most beneficial to them. We recognize this limitation concerning recall but also acknowledge it as necessary to prevent potential risk to or effect on participants during their decision-making process. We also acknowledge that only women who

chose to continue their pregnancy were included and thus women who chose to terminate their pregnancies were not represented.

Implications: Defining the Role of Caregivers

Nuanced counseling and increased care may be difficult because some healthcare providers may be reluctant to enter into conversations with women who experience unintended pregnancies. In part, this is due to the highly politicized nature of the topic or due to personal views regarding abortion, adoption, or parenting. The political nature of this topic remains a major challenge in providing non-coercive, non-judgmental care; however, political and personal views should not hinder care. Rather, the focus of care should be on demonstrated need of this vulnerable population, which research has shown repeatedly that a significant number of women experience unintended pregnancies. Furthermore, evidence from medical and nursing research show the negative effects of unintended pregnancies and point at the gaps that currently exist in health care to address these issues (Hart & McMahon, 2006; Lederman & Weis, 2009; Maxon & Miranda, 2011; Coleman, 2011; Coyle, Coleman, & Rue, 2010).

In many ways, the results of this study were predictable and reflective of past research into psychosocial needs during pregnancy. These outcomes are important in that they offer more evidence for practice and for the development of policies that shape practice. On the other hand, the qualitative component of this study emphasized the importance of addressing the psychological, social, and situational aspects of each of the woman's experience. In some cases, the only support that these women had was from their healthcare providers. If financial, emotional, and social needs of these women are not assessed by healthcare providers, the needs of individual women may remain unknown and unmet. Healthcare providers who encounter women with unintended pregnancies have an opportunity to ask, "What are you going through?"

(Marck, 1994). Healthcare providers, especially those who act as pregnancy counselors can address the needs of this potentially vulnerable population.

Psychosocial factors and difficult life situations are a part of the underlying cause of medical problems. These factors act as the background upon which biological pathologies develop and act with genetic and environmental effects. Psychosocial difficulty in unintended pregnancy contributes to increased stress, decreased coping, and decreased self-care behavior (Maputle, 2009). In defining the role of caregivers, health care providers must understand that this population faces issues revolving around basic necessities of food, clothing, and shelter, and therefore casting medical care as less important than true necessities of daily survival . These considerations are exacerbated by the psychological social issues so often experienced by these women.

Results of this study suggest that comprehensive care with continuous follow-up has the greatest potential for successful management of unintended pregnancy and its outcomes. Regular phone calls and follow-up appointments are particularly important for this population because these women demonstrated a need for help to access supportive as well as health services. Comprehensive care entails looking into financial, emotional, psychological, and social aspects of the women's lives. Caregivers should take into account the context of the patients' lives and address underlying issues because promoting psychosocial adaptation has promise to help improve coping, lead to more adaptive behaviors, and decreased negative health outcomes. Furthermore, concrete help should be offered to those who choose parenting regarding access to social and medical services, similar to managed care described by Postlewaite et al. (2009). Moreover, caregivers should aim in their approach to be resourceful by including interdisciplinary and community resources. Caregivers can form teams that include nurses, social

workers, obstetricians, lawyers, and other advocates. The desire for such comprehensive care was clearly expressed by one woman, *“She’s also a nurse as well. She knows what you’re going through with the pregnancy... She just kind of helped across the board with everything. You know, filling that motherly role, and with the support and just kind of lining everything out.”*

Thus the need for comprehensive care is supported from pregnancy through the postpartum period. Such perspective is important for pregnant women when looking at the future which can seem hopeless in the early stages of unintended pregnancies.

Counseling should be based on the formation of a therapeutic relationship and include the qualities listed in Table 4: welcoming, encouraging, non-judgmental, motherly, and informative. Therapeutic counseling allows women to express themselves and their needs. Then, their needs can be met by comprehensive care which includes referrals to necessary services and continuous follow-up to reassess and address needs. This approach is preventative in nature. Promoting maternal psychosocial adaptation can facilitate decision-making and decrease stress and anxiety, which leads to the prevention the negative outcomes associated with unintended pregnancies. In a way, an active effort to follow-up brings care to women who may not seek care on their own. Caregivers can bring hope and relief of loneliness by being attentive to psychosocial needs and promoting adaptation to pregnancy.

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