Assessing the Influences on Rural Women's Reproductive Life Plans:
A Cross-sectional Descriptive Study

BY

LORI JAGODA, R.N.

B.S.N (Oakland University, Oakland, Michigan) 1980

THESIS

Submitted in partial satisfaction of the requirements for the degree of

MASTER OF SCIENCE

in

Nursing Science and Health-Care Leadership

in the

OFFICE OF GRADUATE STUDIES

of the

UNIVERSITY OF CALIFORNIA

DAVIS

Approved:

_____

Jeri L. Bigbee, Ph.D., R.N., F.N.P.-B.C., F.A.A.N., Adjunct Professor, Chair

_____

Mary Lou de Leon Siantz, Ph.D., R.N., F.A.A.N., Professor

_____

Deborah Ward, Ph.D., R.N., F.A.A.N., Associate Dean for Academics and Clinical Professor

Committee in Charge

2015

Acknowledgements

Dr. Jeri Bigbee has been my thesis committee chair and "river guide" while navigating the currents of my thesis, keeping me on track when I felt I was heading up the wrong stream. Her guidance and knowledge have been invaluable in completing this project and helped me grow as a rural nurse and leader.

A heart felt thank you to my thesis committee members, Dr. Bob Hartmann, Dr. Mary Lou de Leon Siantz, and Dr. Deborah Ward. I appreciate your feedback and your expertise, when reviewing my draft, and tried to reflect your suggestions in the final thesis.

I would like to thank Dr. Greg Herek for teaching me how to create a survey, his help in applying the Health Promotion Model, and allowing me to use Qualtric to administer my survey. Karen Hjortsvang and Alice Wuermli, fellow students in Dr. Herek's class, reviewed and gave feedback from a young adult perspective, for which I am grateful.

A special thanks to Carol Tomek, her daughter, Jamie Lagorio, and all the stylists, who not only participated in my study, but also were essential in identifying clients to approach for recruitment.

I would like to thank the Betty Irene Moore School of Nursing for the opportunity to be a part of the master's program.

Finally, although there are too many to name individually, I would like to thank my family and friends who have supported me and shown confidence in my decision to return to school. You have always been there for me, and my family, to lean on. I want to say a special thank you to my daughters, Samantha and Natalie, who were with me to celebrate when I learned I was accepted into BIMSON, for growing into the remarkable young women they are, and whom I love and appreciate more than I can say.

Assessing the Influences Rural Women's Reproductive Life Plans

Abstract

Rural women's unique personal, social, cultural, and economic characteristics influence their health care decision-making processes. To assess the influences on rural women and their Reproductive Life Plans, a cross-sectional descriptive study, based on the Health Promotion Model (HPM), was used. Thirty rural women, age 18-35 years, living in two Northern California counties, completed an anonymous on-line survey, while in a local beauty salon. The survey included basic demographic information along with questions regarding reproductive plans, contraceptive use, and the usefulness of the survey. The sample consisted of predominantly single, white, educated, religious young adult women who were long-term rural residents, with health insurance and regular healthcare providers. The majority of the sample indicated a desire for children in the future. The study results support the use of reproductive life planning among rural women, consistent with the Health Promotion Model. The results also indicate a need for further research related to the observed discontinuity of sexually active women who report they do not want to get pregnant, yet are not using contraception. Research is indicated evaluating the effectiveness of reproductive life planning in reducing unplanned pregnancies. Studies evaluating the influence of religious/spiritual beliefs, as well as income level, on reproductive life planning is also indicated. Nurse researchers and clinicians should serve as leaders in promoting reproductive life planning, consistent with nursing's focus on person/family-centered health promotion. Policy implications include instituting culturally tailored reproductive life planning as a reimbursed component of care and routinely provided by nurses and other health care providers.

Table of Contents

Introduction

Statement of the Problem

One of the greatest public health achievements in the twentieth century involved remarkable progress in the area of reproductive health. The advent of more effective birth control empowered women with the means to prevent unintended pregnancies and to make informed decisions regarding family planning (Centers for Disease Control and Prevention [CDC], 1999). The definition of unintended pregnancy is a pregnancy that is mistimed, unplanned, or unwanted at the time of conception (Centers for Disease Control and Prevention [CDC], 2013; Santelli et al., 2003). Efforts focusing on reducing the rate of unintended pregnancies date back to the 1800's, and remain at the forefront of health care reform today. Yet, unintended pregnancy rates remain high in spite of the advances in women's health and increased empowerment.

During the twentieth century, promoting the ability to achieve desired birth spacing and family size was the hallmark of family planning (CDC, 1999). Nurse leader, Margaret Sanger, brought family planning to the forefront, advocating for both effective birth control and the empowerment of women to plan their reproductive future. The introduction and widespread use of modern birth control methods, including oral contraceptives and intrauterine devices (CDC, 1999), has been associated with a steady decline in the U.S. total fertility rate[1] over the past century, with the exception of the 1957 postwar baby boom (CDC, 1999; Guyer, Freedmen, Strobino, & Sondik, 2000). The most current estimated U.S. fertility rate was 62.9 births per 1000 women in 2013 (Martin, Hamilton, Osterman, Curtin & Mathews, 2013).

[1] "Birth rates are total births per 1,000 total population; fertility rates are total births per 1,000 women aged 15–44" (Martin, Hamilton, Osterman, Curtin & Mathews, 2013, p. 15).

Despite the significant strides made in family planning, about 5% of reproductive aged women in the United States have an unintended pregnancy each year, with 31% of all pregnancies reported as mistimed and 20% unwanted (Guttmacher Institute, 2013). By the time they reach age 45, approximately half of American women will have experienced an unintended pregnancy, making the U.S. rate of 1.31 pregnancies per woman (Institute of Medicine [IOM], 1995) significantly higher than many other developed countries (Guttmacher Institute, 2013), including the Netherlands (0.28), Great Britain (0.63), Canada (0.79), and Sweden (0.80) (IOM, 1995). The overall proportion of unintended pregnancies in the U.S. has not decreased significantly since 1982 (Mosher, Jo, & Abma, 2012) with the cost to society substantial. Public insurance programs, primarily Medicaid, paid for two thirds of the unintended births in 2008. The estimated total public expenditure for births resulting from unintended pregnancy was $12.5 billion in 2008 (Guttmacher Institute, 2013). This figure does not include the associated costs of social support and ongoing health care postpartum (Gold, 2011). The estimated average annual cost to taxpayers associated with a child born to a teen mother from birth to age 15, is $1,682 per year (http://thenationalcampaign.org/why-it-matters/public-cost/faqs) while the cost for low-income and middle-income families to raise a child, born in 2012, ranged from $173,490 to $242,080 (USDA report, 2013). These costs are in addition to the cost of the pregnancy and birth itself. Healthy People 2020 set the modest goal of decreasing the unintended pregnancy rate of all pregnancies from 49% to 44% over the next ten years (United States Department of Health and Human Services [U.S. Department of HHS], 2013). To achieve this goal and support pregnancy planning, publicly funded family planning services, offering affordable and effective contraceptive options, are available to teens, lower-income, and middle-income women .

Available, affordable, and effective contraception is only one factor involved in preventing unintended pregnancy. Women need to feel empowered to access these options. Empowerment is a term used frequently in the health care arena. What exactly does it mean for women? The working definition of empowerment of women includes having decision-making power, access to information and resources, a variety of options to choose from, the ability to make changes in one's life, the ability to learn skills a woman defines as important, and the means to increase positive self-image and overcome stigma (Chamberlain, 2013). Empowerment is a process rather than an event (Chamberlain, 2013). The World Bank Group defines empowerment as "the process of increasing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes" (The World Bank Group, 2011, p. 1). Empowerment can be equated with personal control (Lord & Hutchinson, 1993) and is key for women to achieve their reproductive life goals.

To empower women, and men, to successfully plan and achieve their reproductive life goals, it is necessary to identify effective tools to promote reproductive health and reduce the risk of unintended pregnancy. One identified tool is a Reproductive Life Plan (RLP). Reproductive life planning starts the conversation between women, their partners, and their health care providers regarding their pregnancy intentions in the context of their personal values and life aims. It is a lifelong plan ideally initiated at the beginning of a person's reproductive years, continuing until reproduction is no longer possible (Liu, Parmerter, & Straughn, 2015). Malnory and Johnson (2011) stress the importance of integrating a RLP into everyday life that is consistent with personal, educational, and career goals. Since 2006, there has been increasing interest in this subject (Curtis, 2008; Files et al., 2011; Frey, Navarro, Kotelchuck, & Lu, 2008;

Lu, 2007; Moos et al., 2008; Ruhl & Moran, 2008; Levi & Taylor, 2009; Sanders, 2009; Centers for Disease Control and Prevention [CDC], 2014; Fuqin, et al., 2015).

When addressing the topic of reproductive life planning with rural women, it is essential to consider the context in which they live and work. Rural women possess unique personal, social, and economic characteristics that may influence the development of their Reproductive Life Plans. The rural environment they live in also influences the choices available. Reduced access to health care providers, particularly women's health care providers, transportation barriers, lack of insurance, and higher infant mortality rates are some examples (Gamm, et al., 2003). Although many agree that reproductive life planning is an essential aspect of reproductive health, there is little research to date addressing its use, including its acceptability by patients, its effectiveness in reducing unintended pregnancy, and its application to a diverse population, including rural women. For rural women, the sense of personal empowerment to access the services and educational opportunities needed to take control of their reproductive health may be challenging, putting them at higher risk of unintended pregnancy.

Nurses have an essential role in promoting reproductive health among rural women. However, nurses need to understand the unique factors, and their impact, on the reproductive decision-making of rural women, in order to assist them in attaining knowledge needed to achieve their reproductive life goals. The purpose of this study was to determine what these influences are, through a cross-sectional descriptive study, using a specifically designed survey based on the Health Promotion Model (HPM).

Significance to Nursing

Reproductive life planning is consistent with nursing's foundational focus on health promotion and person/family-centered care. Nursing scholars, clinicians, and leaders have been

at the forefront of promoting reproductive life planning (Coffey & Shorten, 2013; Lu, 2007; Moos 1989; Moos, Bangdiwala, Meibohm, & Cefalo, 1996; Moos, 2006; Moos et al., 2008; Sanders, 2009; Thompson & Archer, 2012; Fuqin, et al., 2015). Nurses work in a variety of settings, placing them in trusted key positions that can empower women to achieve their reproductive life goals. Gallup surveys of the most trusted professions commonly list nurses at the top, describing nurses as particularly able to connect with patients (Swift, 2013). Found in all practice settings including family planning clinics, case management, emergency departments, and schools, nurses can enhance their patients' knowledge and promote the use of a Reproductive Life Plan. In rural communities specifically, nurses are well regarded as trusted community members. They are key leaders in promoting reproductive health (Lauder, Reel, Farmer, & Griggs, 2006).

Literature Review and Conceptual Framework

Introduction

It was important to identify influences that affect rural young adult women of reproductive age, and the impact these factors have on their reproductive decision-making. Few studies are available in the literature regarding reproductive life planning. Most are conducted in urban centers and health care settings. Some influencing factors identified that may influence health behaviors included: social norms, culture, physical, and social environment, as well as national health policies (Hawks, Madanat, Merrill, Goudy, and Miyagawa, 2002). To understand the unique influences for rural women, a review of rural economics and culture, rural health care, and rural women's reproductive health care, follows. With these factors in mind, this chapter provides a literature review of the influences on rural women's reproductive health decision-making. It concludes with a discussion of the Health Promotion Model (HPM), the conceptual framework guiding the study of factors that influence rural women's reproductive health decision-making.

Reproductive Life Planning and the Influences on Women's Reproductive Health Decision-Making

In order to understand the unique influences for rural women, it was necessary to understand the influences for all women regarding their reproductive health decision-making. This section includes the conceptual origins of reproductive health, unintended pregnancy, the perception of empowerment for women, and finally, the stages of women's development.

History of reproductive health. The reproductive health and health care for women in America have been impacted by powerful historical events and trends. One of the most significant trends was the development of effective birth control methods. Effective birth

control, defined as a contraceptive method that results in a pregnancy rate of fewer than 10 pregnancies per 100 woman-years (Mosby Medical Dictionary, 2009), was not available to women until 1960. Prior to modern contraception, withdrawal, abstinence, abortion, and sterilization were the only existing family planning methods (Our Bodies Ourselves, 2014; Thompson, 2014; Zurawin, 2013). In 1838, additional family planning options introduced were condoms and diaphragms made of vulcanized rubber. However, when the Comstock Act was passed in 1873, it prohibited the advertisement, information, and distribution of birth control and permitted the U.S. postal service to confiscate any sent through the mail. Sixty-five years later, in 1938, a judge lifted the ban on birth control, ending the Comstock era. The Food and Drug Administration approved the first oral contraceptive and the first intrauterine device in 1960 (CDC, 1999). Since the 1970's, birth control has become more widely available, with more effective methods introduced as well as emergency contraception for contraceptive accidents or non-use (Thompson, 2014).

Meanwhile, the practice of legal abortion in the U.S. continued until about 1880, when most states had banned the practice except to save the life of the woman (Our Bodies Ourselves, 2014). The first statutes controlling abortion were actually poison control measures, enacted to control the sale of abortifacient drugs. The intent of these statutes was to protect pregnant women from dying, after ingesting abortifacients, sold by doctors, apothecaries, and other healers (Reagan, 1997). In 1857, the newly organized American Medical Association (AMA) campaigned to make abortion illegal in order to win professional power, control medical practice, and restrict competitors, including lay midwives (Reagan, 1997). In addition, anti-abortion legislation was a backlash against the women's suffrage movement and birth control, in an effort to control women (Our Bodies Ourselves, 2014). Gender, racial, and class concerns

were additional factors advancing the criminalization of abortion (Reagan, 1997). Growing hostility to immigrants, Catholics, and people of color, and fear they would outnumber the white population, encouraged the campaign to criminalize abortion (Reagan, 1997).

When abortion became illegal, a woman's access to the procedure depended on her income, race, and where she lived. Low-income women frequently could not afford to travel out of the country, or find a provider to perform the procedure. Consequently, these women would turn to dangerous self-abortions, using knitting needles, douching with lye, or ingesting chemicals (Our Bodies Ourselves, 2014). Between 1967 and 1973, four states repealed, and fourteen reformed, restrictive abortion laws (Our Bodies Ourselves, 2014). It was not until 1973 that the Supreme Court landmark decision "Roe v. Wade" once again legalized abortion (Our Bodies Ourselves, 2014). However, the abortion debate continued and in 1980, the U.S. Supreme Court upheld the Hyde Amendment to the Social Securities Act ruling, restricting Medicaid funding for abortion to cases of life endangerment, rape, or incest (Pew Research, 2013a). As recently as 2015, the U.S. Senate passed a bill that would prohibit using federal funding to pay for any abortion, or pay for health benefits coverage that includes abortion coverage (Chappell, 2015).

During the mid-1960's, in spite of the considerable advances made in contraception and the abortion law reform, many American women, especially low-income women, continued to have more children than they wanted. Research conducted during that time identified inequitable access to contraceptives for women with lower socioeconomic status. Consequently, they could not limit, or time, the number of children they wanted, leading to adverse health outcomes for both the woman and her children. Evidence also began to identify an association between unintended pregnancy, increased poverty, and dependence on public assistance programs,

resulting in the reduction of a woman's opportunities to participate in the workforce, or complete an education (Gold, 2001).

In response to the research, the Federal Government developed grants in 1965 to support the provision of family planning services, as part of the Johnson administration's War on Poverty. The result was a patchwork of widely varying publicly subsidized family planning programs across the country, with each individual State controlling what little funding was available. Individual State control changed dramatically in 1970, with the enactment of Title X of the Public Health Service Act. Title X sought to fulfill President Richard M. Nixon's historical 1969 promise that "no American woman should be denied access to family planning assistance because of her economic condition" (Gold, 2001, p. 5). While other federal programs, including Medicaid, and state/local funds are available to subsidize family planning, the Title X program remains central to the national effort, and is the only federal program dedicated solely to family planning (Gold, 2001; Hasstedt, 2013).

The twentieth century was also a watershed period for women's reproductive rights. Between 1900 and 1999, women made significant strides in the areas of reproductive health and empowerment to plan their pregnancies (CDC, 1999). In 1900, six to nine women out of every 1000 died during childbirth (CDC, 1999). In 1972, birth control became legally available to all women, regardless of marital status (Thompson, 2014). By 2009, maternal deaths during childbirth decreased to less than one of every 1000 births (CDC, 2014). The most current figures for 2012 estimate the overall U.S. fertility rate at 63.0 births per 1000 women compared to rate of 126.8 births per 1000 women in 1910 ("Fertility rates", 2012). As it has every year since its inception in 1979, (United States Department of Health, Education, and Welfare, 1979), the Healthy People initiative for 2020 includes decreasing unintended pregnancy as an objective,

with the modest goal of decreasing rates from 49% to 44% over the next ten years (U.S. Department of HHS, 2013). As long as women continue to experience unintended pregnancy with its adverse effects, despite having access to the effective contraceptive methods, it is imperative to develop an understanding of the basis for this ongoing problem.

Unintended pregnancy. The United States continues to report high rates of unintended pregnancy. An unintended pregnancy is one that is mistimed, unplanned, or unwanted at the time of conception (CDC, 2013; Santelli et al., 2003). When examining the demographics of unintended pregnancy, certain groups stand out. Rates are higher among low-income women, women aged 18-24, cohabiting women, and minority women (Guttmacher Institute, 2013). Forty-five percent of the births to African-American women were unintended in 2006-2010. During this same period, 35% of the births to Hispanic women, and 20% of those to non-Hispanic white women, were unintended (Mosher, et al., 2012). Of note, Hispanic women's fertility rates in 2012 were higher at 74.4 births per 1000, while African American women had a fertility rate of 65.1 and white women a rate of 58.6 (CDC, 2013). The fertility rates for American Indian/Alaskan Natives was 47.0 and 62.2 for Asian/Pacific Islanders, in 2012 (CDC, 2013). It is significant to note that Hispanic women have a higher fertility rate but fewer unintended births, compared to African-American women with a lower fertility rate but a higher percentage of unintended births.

The highest rate of unintended pregnancy occurs in women who are either not using birth control or using it inconsistently (The National Campaign to Prevent Teen and Unplanned Pregnancy, 2013). In a 1979 "Youth Values Project" report, the Population Institute classified sexually active adolescent women who do not use birth control into three categories (Ross, 1979). The three categories identified were: 1) those who lack contraceptive information, 2)

those who have information but are not motivated to use it, regardless if it is available, and 3) those who choose to have a baby because they feel they have no other attractive options, little sense of opportunity, with a baby defining their role in society (Ross, 1979). These categories may fit sexually active, young adult women, who do not use birth control. The sexual and reproductive health of this age group warrants special attention. Women age 20-24 had the highest rate of unintended pregnancy in 2008, with 104 unintended pregnancies per 1,000 women (Guttmacher Institute, 2013). "…how poorly or well young adults fare in protecting their sexual health and managing their fertility is to a large extent dependent on the quality of the education and preparation they received when they were teens" (Boonstra, 2009, p. 13). Education, effective contraception, accessible health care, skilled health care providers, and quality service delivery, are all essential elements to consider when examining unintended pregnancy and reproductive health decision-making.

Empowering women. In addition to education, effective contraception, accessible health care, skilled health care providers, and quality service delivery, another important component of reproductive health decision-making is empowerment. The World Bank defines empowerment as "the process of increasing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes" (The World Bank Group, 2011, para. 1). Empowerment in reproductive health includes the ability to reproduce and the freedom to decide if, when, and how often to do so. In order to gain the freedom to decide to reproduce (or not), women must have a perception of personal empowerment.

The personal empowerment process includes both internal and external components. The internal process is the person's sense or belief in her ability to make decisions and to solve her own problems, and that one's actions determine the outcomes (Parsons, 1988). Externality is the

belief that outcomes are the result of luck, fate, or powerful others (Parsons, 1988). Empowerment is a multi-leveled concept that occurs at individual, group, organizational, and community levels (Sadan, 2004). Environmental, cultural, and historical factors play important roles and may influence one's perception of empowerment (Sadan, 2004).

According to the United Nation's "Guidelines on Women's Empowerment" (United Nations Development Fund for Women [UNIFEM], 1995), there are five components to empowering women. These include a women's sense of self-worth, the right to have and to make choices, the right to have access to opportunities and resources, the right to have the power to control their own lives, both within and outside the home, and the ability to influence the direction of social change. These are likewise key components to reproductive life planning to consider, in order for a woman to be successful in achieving her reproductive life goals. The cornerstone of sexual and reproductive health is recognition of the basic right of all couples and individuals to decide freely and responsibly the number, spacing, and timing of their children, and to have the knowledge and means to do so ("Women, empowerment", 1994). In order to reach full potential, women must be empowered to exercise their reproductive rights and manage their reproductive roles.

Women's development. In addition to a woman's sense of empowerment affecting her reproductive health decision-making, another key factor to consider is her current stage of development. Women of prime reproductive age are a critical population to target reproductive life planning efforts (Schuiling & Low, 2006). This population of women may face a variety of social, cultural, and economic challenges important for nurses to consider when assisting them in making their Reproductive Life Plans.

Young adulthood, defined as the years between 18 and 25, includes a period of rapidly changing social patterns in regards to relationships with parents, sexual practices, employment preferences, marriage, family formation and childbearing (Massachusetts Institute of Technology [MIT], 2011). Human development is a lifelong process of change, including physical, behavioral, cognitive, and emotional change (Advocates for Youth, 2002). Some of the typical developmental tasks for those 18 years and older include moving into adult roles and responsibilities, identifying career goals, pursuing higher education, entering into intimate sexual and emotional relationships, with a shift in their emphasis from self to others (Advocates for Youth, 2002). Leaving home, childbearing, child rearing, establishment of a career, marriage, divorce, or cohabiting, are some examples of the transitions this group of women can experience. While many women go through several developmental transitional periods between age 18 and 35 (Schuiling & Low, 2006), these transitions do not apply to all women. Education, race, ethnicity, and culture, can influence if, and when, they occur (MIT, 2011). The life-span perspective views human development as occurring in many contexts including physical and social environments (Saracino & Burr, 2012).

A major developmental task for young adults is moral development and may include spiritual development (Saracino & Burr, 2012). Spiritual development is important because attitudes regarding acceptable contraceptive use vary among different religious groups and can shape reproductive health decision-making. For example, Catholicism prohibits all forms of contraception and abortion, except for measures normally taken to save a mother that result in the death of the fetus (Epigee Women's Health, 2014a). Orthodox Jews generally are not encouraged to use birth control and, if permitted, only a selection of available methods may be used. Barrier methods of contraception, vasectomies, and the withdrawal method are

discouraged in the Jewish faith as methods of birth control, although condom use for infection prevention is acceptable. Abortion is acceptable but only under certain circumstances (Epigee Women's Health, 2014b). Thus, spiritual development may influence reproductive health decision-making processes for reproductive age women.

Spiritual and religious influences for reproductive age women were examined in a 2011 Guttmacher Report, "Countering Conventional Wisdom: New Evidence on Religion and Contraceptive Use" (Jones & Dreweke, 2011). Report findings included "the majority of women of reproductive age (15-44) have a religious affiliation, attend religious services at least once a month and indicate religion is very important in their daily lives" (Jones & Dreweke, 2011, p. 4). Among never-married women of all religious affiliations, sexual experience was common, with 79% reporting having been sexually active. Catholics and Mainline Protestants, age 20-24, were more likely to report having had sex than Evangelical women. Evangelical women of reproductive age who reported never having had sex were more likely than Catholics or Mainline Protestants to give religious or moral reasons as their primary reason for abstinence (63% vs. 31% and 35% respectively; Jones & Dreweke, 2011). Among all sexually experienced women in the report, 99% had used a contraceptive method other than natural family planning, including Catholic women (Jones & Dreweke, 2011). Most of the sexually active women (89%) who were not pregnant, postpartum, or trying to get pregnant, practiced contraception, and the majority (69%) used a highly effective method (Jones & Dreweke, 2011). The highly effective methods used included sterilization, oral contraceptives or other hormonal methods, or the IUD (Jones & Dreweke, 2011). Eleven percent of the women, who were not pregnant, postpartum, or trying to get pregnant, were not using contraceptives. Levels of nonuse did not differ by religious affiliation, frequency of attendance or importance of religion (Jones & Dreweke, 2011). The

report concluded that use of highly effective contraceptive methods is unrelated to women's religious service attendance or importance of religion to her daily life (Jones & Dreweke, 2011). The data for this report was derived from the 2006–2008 National Survey of Family Growth (NSFG), which gathers information on contraceptive use from a nationally representative sample of women. The survey data was gathered using in-person interviews with 7,356 women aged 15–44 between June 2006 and December 2008. All of the data used in the Jones & Dreweke analysis were weighted, and the authors reported the findings were nationally representative (Jones & Dreweke, 2011). However, the authors did not include information regarding socioeconomic status, race/ethnicity, or residency, including rural versus urban.

Cultural factors relative to family size and contraception are equally important as religious factors to reproductive decision-making (Srikanthan & Reid, 2008). Important cultural factors to consider include gender role inequality, deference to family or physician authority, religious influences, belief that the use of contraception implies sexual promiscuity, difficulties in discussing sexual health issues, attitudes toward monthly menstruation, and beliefs about decision-making autonomy ("Engaging in", 2009). For women at risk of pregnancy, culturally tailored discussion of preconception care and reproductive life planning is vital if they are to achieve their reproductive life goals.

Overview of Reproductive Life Planning

A Reproductive Life Plan is a patient-centered blueprint that takes into consideration the stages of the woman's development as well as her future intentions for children (CDC, 2006). The formal concept of reproductive life planning is relatively new. There is an abundance of literature recognizing the importance of reproductive life planning, what content to include, and discussing the most effective time to implement the concept. This section reviews the

development of this concept, the available research, as well as the tools currently available to implement its use.

Background. The concept of planning one's reproductive life course is in the literature as early as 1985, when Moos and Cefalo developed the first preconception-screening tool (Centers for Disease Control and Prevention [CDC], 2012). It was not until 2006, however, that the Centers for Disease Control and Prevention published official recommendations to improve preconception health and health care (Centers for Disease Control and Prevention [CDC], 2006), including the recommendation for every woman, man, and couple to develop a Reproductive Life Plan (RLP).

A RLP takes into consideration intentions for the number and timing of pregnancies in relation to personal values and life goals (Centers for Disease Control and Prevention [CDC], 2007). It aims to support informed decision-making about reproductive health, including if, and when, to have children, future dreams, current health, and setting goals (Swick & Enders, 2013). In addition to setting personal goals for the timing and spacing of children, a RLP also outlines a plan to achieve those goals (Files et al., 2011). Reproductive life planning focuses on the specific health, economic, social, and cultural issues pertinent to the individual. All health care providers, especially nurses, should address the topic at each encounter with women and couples of reproductive age. "The belief that preconception care needs to be a separate, planned intervention immediately before a woman becomes pregnant continues to be one of the largest barriers to reproductive life planning" (Malnory & Johnson, 2011, p. 114).

Reproductive life planning is one component of preconception care, "a set of interventions that aim to identify and modify risks to a woman's health or pregnancy outcomes through prevention and management" (Berghella, Buchanan, Pereira, & Baxter, 2010, p. 119).

The goal of preconception care is to promote planned pregnancies resulting in improved birth outcomes (Malnory & Johnson, 2011). Although preconception health and reproductive life planning are well-supported concepts, few studies exist identifying evidence-based outcomes of their effectiveness.

Research on reproductive life planning. The current state of the science regarding reproductive life planning is limited. One of the first reproductive life planning studies was conducted by Moos et al. (1996), evaluating the impact of a preconceptional health promotion service on pregnancy intendedness. The study examined the experiences of women attending maternity programs at three health departments in North Carolina providing the service since 1985. The sample in this study included 1378 pregnant women, at the clinic for their first prenatal visit, with 33.1% exposed to the service, 22.4% with no exposure, and 44.5% with unknown-unexposed. The setting included clinics serving either large urban, rural, or a combination of rural/urban, populations. The results indicated that the women exposed to the preconceptional health promotion intervention had a 51.8% greater likelihood of identifying their pregnancy as intended than the unexposed group. When comparing the known/exposed group to the unknown/unexposed women, the experimental group had a 64.2% greater likelihood of identifying their pregnancy as intended. This study suggested exposure to preconceptional health information during routine family planning visits might affect the intendedness of subsequent pregnancies for women similar to the sample in this study. The association, however, was weak and lacked statistical significance.

Strengths of the study include using multiple sites with a variety of populations served, including a rural population, and a large sample size. Weaknesses include the requirement that participants had to become pregnant and initiate prenatal care in order to participate. Ethnic

distribution between the three groups differed significantly, with fewer African-American women in the unknown/unexposed group. Hispanics and other non-African-American minorities were not included in the analysis because of their small number. The study results are not generalizable because all participants were low-income, and did not include women of higher income levels. An additional weakness is recruitment was only at local public health department family planning clinics. Other weaknesses include not reporting how rural was defined and, although a rural population was included in the sample, data analysis did not include rural as an independent variable. Information on religious background and the importance of religion was not included. Therefore, further research that includes rural women, Hispanic and other ethnic minority women, and addresses the influence of religion on reproductive decision-making, is necessary.

Building on the Moos et al. study (1996), Dunlop, Logue, Miranda, & Narayan (2010) conducted a study in publicly funded, primary care clinics serving primarily indigent, minority clients in metropolitan Atlanta. The purpose of this mixed method study was to evaluate the acceptability and utility of integrating reproductive life assessments into primary care visits. Using purposive sampling, the sample consisted of 144 African-American and Hispanic females and males. Inclusion criteria were outpatients, seeking preventive health care or services for an acute or chronic condition, African-American or Hispanic, between 18 and 45 years of age, inclusive, and able to speak and understand spoken English or Spanish. Exclusion criteria were pregnant women, men with pregnant partners, and cognitively impaired adults. Data collection included completion of a demographic form, a reproductive plans assessment form, and an open-ended interview. Questions in the assessment form focused on desire for pregnancy and current

contraceptive use, while the interview questions asked about the subsequent interaction with the health care provider.

The results demonstrated that overall, 81% of the females, and 42% of the males reported the reproductive plans assessment was important in their encounter with their provider. A substantial proportion of the participants were at risk for unintended pregnancy. A strength of this study was including patients seeking preventive health care or services for an acute or chronic condition, rather than a reproductive health care visit. While this study did include both females and males, only urban, African-American, or Hispanic patients were participants and neither rural nor Caucasian participants were included. There was no indication whether the Hispanic patients were U.S. born, and, if not, how long they had lived in the U.S., an important cultural factor to consider, in addition to the influence of religion on their behavior. Similar to the Moos et al. study (1996), recruitment took place only in publicly funded clinics. The study did not examine if subsequent health behaviors or pregnancy planning and/or intendedness were affected (Dunlop et al., 2010), nor did it examine the current readiness and desire for pregnancy or how the woman would feel if she were to learn she were pregnant.

A more recent study from 2013 addressed some of these gaps when evaluating the impact of a reproductive health self-assessment tool in an urban Illinois community health center (Bello, Adkins, Stulberg, & Rao, 2013). This study's sample consisted of low-income African-American women and primary care providers. In addition to questions about desire for pregnancy and contraceptive use, the tool included questions about the number of children desired, timing/spacing of children, as well as readiness for pregnancy. Since the focus of this intervention was on routine primary care, similar to the Dunlop et al. study (2010), women who were pregnant, within twelve months of their most recent birth, permanently sterilized and/or had

their primary reason for the visit related to contraception or family planning, were excluded. Implementation of the tool began after completion of provider training that reviewed the guidelines for incorporating preconception health and reproductive goals assessment into patient visits.

Study results revealed the participant responses were consistent from both the 22 patients and 15 providers when rating the effectiveness of the RLP tool in engaging and improving the quality of the counseling session. Similar to the Dunlop et al. (2010) study, both the patients and the providers reported the tool presented new and thought-provoking material that promoted patient participation and facilitated counseling during the appointment. The results suggest using a reproductive health self-assessment tool may activate women to participate more fully in their health care, including contraceptive choice and continuity (Bello et al., 2013). "One reason women may not seek preconception services is because they are not activated, meaning they lack the skills and confidence to manage their preconception health" (Bello et al., 2013, p. 2). In other words, women need to feel empowered to take control of their preconception health. Patient activation is an important concept in current health care reform efforts, with the Center for Medicare and Medicaid Innovation including it as a scoring criterion in their Pioneer Affordable Care Organization applications (Greene & Hibbard, 2012). Future work related to patient-oriented outcomes, including contraceptive adherence, and application to other populations is suggested (Bello et al., 2013).

Strengths of the Bello study include a focus on routine primary care and the inclusion of questions about timing/spacing and readiness for pregnancy. Another strength is the consistency of responses from both patients and providers. Weaknesses include lack of generalization due to the limited patient group sampled. The provider sample group consisted primarily of physicians

or residents and only one nurse practitioner, with an emphasis on the provider view and only primary care provider views. As with the Dunlop et al. study (2010), rural participants were not included in the sample, nor were religion or other cultural factors included. Although this study did address the woman's desire and readiness for pregnancy, it did not assess how the woman would feel if she learned she were pregnant today. These are all important factors to consider when ensuring the provision of individualized reproductive health counseling to assist women in successfully achieving their reproductive goals.

The studies reviewed thus far focused primarily on low-income women, urban populations, and a limited number of rural women. Identification of the cultural and religious beliefs of the participants was not included, and very few Hispanic women were participants. All of the studies took place in the United States. However, reproductive life planning (RLP) is an important subject worldwide.

In a 2013 Swedish study, Reproductive Life Plan-based information was provided during contraceptive counseling, to determine if there was an increase in a woman's knowledge of reproduction and, specifically, the importance of folic acid intake (Stern, Larsson, Kristiansson, & Tyden, 2013). In a randomized control study, the sample consisted of 299 Swedish-speaking women, with a mean age of 23 years, who visited a student health center for either contraceptive counseling, chlamydia testing, or cervical screening. Insufficient knowledge of Swedish was the only exclusion criteria. The intervention group received the RLP intervention, entailing the midwife using an interview guide to initiate discussion about the woman's reproductive life goals. Interview questions were similar to those used in the Dunlop et al. (2010) and Bello et al. (2013) studies, in addition to a question regarding how confident the woman felt in achieving her

identified reproductive goals. Participants in the intervention group also received a specially designed brochure to take home, based on RLP pamphlets from the United States.

At a 2-month follow-up structured telephone interview, results indicated the RLP-based information increased women's knowledge of reproduction, including the importance of folic acid intake. Although the primary focus of this study was folic acid intake, secondary outcome measures included family planning intentions. Comparable to the Bello et al. (2013) and Dunlop et al. (2010) studies, the majority of the participants who took part in the follow-up interview rated the RLP information as very or rather positive. The authors suggest that the intervention may empower women by helping them understand what aspects of reproduction they can control, such as lifestyle habits, and those they cannot, such as declining fertility with advancing age (Stern et al., 2013). This study suggests that increased knowledge about reproduction enables women to make informed choices about their reproductive life course and supports the importance of individual empowerment. Strengths of the Stern et al. study include it was a randomized control design with the intervention taking a limited amount of time and resources. Limitations include the fact that it was conducted in Sweden with a highly educated group of participants and the results are not generalizable to women living in the United States or other countries.

Reproductive life planning tools. Despite these findings demonstrating the importance of a RLP, very few evaluated assessment tools are available. One example is the "Life Plan Booklet" (Thompson & Archer, 2012) that covers a range of topics on preconception health and well-being, including future dreams, financial security, alcohol and tobacco use, and family planning. The first phase of this study piloted and evaluated the Life Plan Booklet using a 13-question semi-structured interview guide with a focus group made up of 29 female participants,

age eighteen and older. About half of the participants had achieved a high school education, most were single, and about 90% had a previous pregnancy. The study did not identify the ethnic, religious, economic, and cultural characteristics of the participants. The focus group responses were mostly positive, with women explaining how articulating goals and writing them down made them tangible, and made them feel accountable to work towards achieving them. The women also reported a sense of empowerment after reading the booklet.

After revising the booklet based on the focus group responses, a second phase of evaluation followed to determine if the revised tool increased a woman's knowledge of preconception health and motivated her to make changes to improve her health. The second phase of evaluation took place at two Colorado clinics. All English-speaking women of reproductive age (18-44 years) who self-reported they were not pregnant at the time were eligible to participate. The participants completed a pre-survey while waiting for their provider visit and then received a copy of the Life Plan Booklet to take home. Six weeks later, investigators contacted participants, by phone or email, to complete a post-survey. Data collection discontinued after 16 weeks due to low enrollment. Data analysis was therefore incomplete.

Based on the formative research findings, indications are a hard copy booklet might be hard to keep track of as well as costly to print, store, and distribute (Thompson & Archer, 2012). The tool's purpose was to be a goal-setting guide used over time, requiring regular content updates. However, keeping track of the booklet over several years may be challenging. Strengths of this report are the overwhelming positive reports of the usefulness of a Reproductive Life Plan and women reporting the sense of empowerment using the tool during the phase one evaluation. Weaknesses included the option of email follow-up with no personal follow-up interview during the phase two evaluation, resulting in incomplete data analysis. The study did

not identify the ethnic, religious, economic, and cultural characteristics of the participants. The results of this study indicated a need for further development of effective reproductive life planning tools and improved ways to administer and evaluate them.

Reproductive Life Planning and Rural Women

Few studies have examined reproductive life planning in any population. Studies in rural populations, who may experience different influences than urban populations when making reproductive health decisions, are even fewer. To identify what these influences might be, this section includes a review of rural culture, economics, health care, and specifically reproductive health care and research.

Rural culture and economics. Multiple definitions for the word "rural" are found in the literature (Coward et al., 2006; Crosby, Vanderpool, & Wendel, 2012; Klugman & Dalinis, 2008; Leipert, Leach, & Thurston, 2012). Frequently, the bases of the definition "rural" are population density, land use, or socioeconomic characteristics (Kouame, 2010). The two most commonly used definitions are those established by the Office of Management and Budget (OMB) and the Census Bureau (Rural Policy Research Institute [RUPRI], 2007). The Census Bureau definition uses population and population density to label the geographic units "census block" or "block group" as urban or rural (RUPRI, 2007). The OMB uses "county" as the geographic unit and designates counties as rural or urban based on statistical areas (i.e. metropolitan and nonmetropolitan areas). Another frequently used system to define rural is the Rural-Urban Commuting Areas (RUCAs) system, which uses the Census Bureau's census tracts and zip code approximation as the geographic unit to define 33 categories of rural and urban census tracts (RUPRI, 2007). Finally, the Rural-Urban Continuum Codes (RUCC) is a system

that groups counties and county equivalents into three metropolitan and six nonmetropolitan groupings with county as the geographic unit (RUPRI, 2007).

Rural culture. No matter what definition of "rural" is used, there is consensus that rural communities have a unique, but diverse, culture with distinct features, and possess a variety of distinctive strengths and challenges (Kouame, 2010). The word "rural" often brings with it an image of a high quality of life in non-material terms and slower paced living. Common assets of rural culture include a sense of community, respect for life and land, as well as religiosity, independence, a strong work ethic, and a sense of gratitude (Kouame, 2010). Hallmarks of rural America include low population density, limited available services, with geographic distance or terrain a challenge, and limited transportation services available, making access to services difficult (National Rural Health Association [NRHA], 2013). Other hallmarks include larger proportions of elderly, higher unemployment and underemployment rates, higher percentages of low-income, uninsured and underinsured individuals, and a higher percentage of minorities (Hart, Larson, & Lishner, 2005; Kouame, 2010; NRHA, 2013). Additionally, common traits of rural communities include social isolation and higher incidence of substance abuse, domestic violence, chronic illness, unintended injuries, and premature deaths (Kouame, 2010; NHRA, 2013).

Other important aspects of rural culture are religion, values, and politics. In many rural areas, faith communities play an important role in community engagement and participation (Kouame, 2010). Rural Americans in general are more religious (Dillon & Savage, 2006) and more likely to be Protestant than Catholic, except in the Northwest (Dillon & Henly, 2008). Among rural Protestants, approximately two-thirds are born-again Christians and church attendance is more frequent in declining-resource and poor rural communities (Dillon & Henly,

2008). Significant regional differences are evident, with rural Southerners more likely to be highly religious than their rural counterparts in Eastern, Midwestern, and Western parts of the country (Dillon & Savage, 2006). Rural Southerners are the most conservative in their religious beliefs with rural Midwesterners less so, but more conservative than rural Americans in the East and West (Dillon & Savage, 2006). It is important to note that many rural residents, although a minority, avoid church and religious involvement and are more liberal in their values (Dillon & Savage, 2006). In addition to conservative religious beliefs, rural Americans are more morally conservative and more often family-oriented, adhering to traditional values, than Americans living in urban or metropolitan areas (Gimpel & Karnes, 2006). In regards to political affiliation, a 2014 Pew report found political conservatives are more concentrated in rural areas (Pew Research Center, 2014b).

Rural economics. In addition to a unique rural culture, rural communities frequently have a unique economic structure. Two cornerstones of rural economies are self-employment and widespread property ownership (Gimpel & Karnes, 2006). The basis of many rural economies are agriculture, forestry, mining, natural amenity-based recreation or tourism. Businesses and manufacturing industries, involved with the processing of food, wood, and mining products, play a key role in many rural communities (U.S. Department of Agriculture Economic Research Service [USDA ESR], 2014). Rural communities often have small and/or family owned businesses, which support the major industry in the region, for example tourism or agriculture. Part-time or seasonal employment without health insurance benefits is common. Although family businesses can promote cohesiveness and autonomy for their members, they may also contribute to excessive stress for the family, whose income may be directly dependent on local or regional industries. Fewer rural residents attend or finish college compared to urban

residents in the U.S. (Crosby et al., 2012). Women in rural areas often lag behind urban women in years of education completed and limited opportunities exist for rural women with advanced education, who often must travel outside the area for employment or accept a local position they are overqualified to fill (Leipert et al., 2012).

While small and family-owned businesses related to local industry are common in rural communities, there tends to be significantly fewer financial, professional, scientific and information services. The public sector, including local government, public utilities, and education (U.S. Department of Agriculture Economic Research Service [USDA ESR], 2012), is a major source of earned income in rural areas. Health and educational services, and government were responsible for 35 percent of all rural earnings in 2010 (USDA ESR, 2012), and typically have a lower rate of employee turnover (Leipert, et al., 2012). Another notable feature of rural economics is its relative income equality, characterized by a narrow income distribution and a smaller gap between rich and poor than found in urban areas (Gimpel & Karnes, 2006). "It is this level aspect of rural life that allows a fierce commitment to individualism to thrive" (Gimpel & Karnes, p. 469, 2006). While rural economic infrastructure can be viewed as a strength, it can also be a source of financial and emotional stress, affecting self-esteem and emotional wellbeing, including for many women (Leipert et al., 2012).

Rural health care. The provision of health care is yet another unique aspect of rural living as compared to urban living. When examining the provision of rural health care, it is important to consider the social dynamics, religious influences, political makeup, and strong sense of attachment residents often feel toward their communities. Rural values that influence health care decision-making include self-reliance, self-care, use of informal support systems, a strong work ethic, and defining health and illness more often in terms of whether one can or

cannot work and less in medically defined terms (Klugman & Dalinis, 2008). Socially, small towns promote familiarity among their residents. This can be both a strength and a challenge. In times of need, members of rural communities prefer to rely on informal social support systems, such as family and friends or their faith-based community. Although these social support systems can serve as positive influences, they may also have negative impacts because of the "community grapevine" with confidentiality an issue (Klugman & Dalinis, 2008).

Rural residents and communities face shortages of health care professionals, treatment facilities, and often the means to pay for health care when it is available. Specialty services are often limited or non-existent with long distances to receive care, poor travel conditions, and the lack of dependable personal or public transportation major barriers to accessing care (NHRA, 2013). People living in rural areas are more likely to be on Medicare, lack ready access to formalized home and community-based services, and lack convenient access to emergency services or specialty care (Kouame, 2010). Additional barriers include poverty, lack of insurance coverage, language barriers, and cultural and political factors (Martins et al., 2014). Perceived and genuine lack of anonymity in some communities, especially where care facilities are scarce, is an important barrier to health care to consider, and particularly true for reproductive services. There are often overlapping professional-patient relationships, with health care providers participating in many of the same social activities as their patients. These multiple relationships can enhance as well as complicate the provision of care, with rural providers often possessing a level of knowledge of their patients that is unlikely to occur in most other settings (Klugman & Dalinis, 2008). Because of these barriers rural residents face, they often receive fewer health care visits per year, and seek care later when conditions are more serious and difficult to treat (Leipert et al., 2012). According to a 2005 Institute of Medicine Report (Institute of Medicine

[IOM], 2005), rural communities, like much of America, face substantial challenges in closing the quality gaps in both health care and population health status. "The goals of making care safe, effective, patient-centered, timely, efficient, and equitable for rural and frontier communities necessitate designing systems that build on the human and capital resources available in rural America" (IOM, 2005, p. 58).

Rural women and reproductive health care. Rural women experience these same barriers in accessing primary health care services, and in seeking reproductive health care. The context in which they live and work is an important consideration when addressing the topic of reproductive life planning. Provider shortages and limited access to reproductive health services intensify all of the challenges rural women face when making reproductive health decisions (Bennett, 2002; NRHA, 2013).

While fertility rates and household size have declined in rural areas, rural women are more likely to be married, have more children, live in larger families, and complete their families earlier in life (Leipert et al., 2012). Rural women often have multigenerational living arrangements, frequently for economic reasons. This can provide social support as well conflict within the family unit (Leipert et al., 2012). On average, rural women are less likely to engage in preventive and health promotion behaviors (Leipert et al., 2012), including mammography, cervical cancer screening, and prenatal care (NRHA, 2013). They are more likely to engage in high-risk behaviors such as smoking, lack of seat belt use, and lack of regular exercise (Leipert et al., 2012). Family planning and reproductive health care are essential services influenced by local culture and politics. Different religious and cultural value systems in rural communities can influence the reproductive life course and contraceptive choices for rural women (Srikanthan & Reid, 2008). Persons who are more committed to religious values, raised in religious

institutions, and more involved in their religious communities, are more likely to emphasize family-oriented values and behavior as well as greater sexual role segregation (Schenker & Rabenou, 1993). Different religious organizations view contraception use differently with religion frequently an important influence for rural women. Health care providers must consider the importance of religion to when counseling rural women about their Reproductive Life Plans.

Rural reproductive health research. With access to reproductive health services a challenge for many rural women, it is important to understand the bases of their reproductive health care decisions. Few studies exist focusing on U.S. reproductive health in rural populations as a whole or on rural women specifically. Martins, Damm, Hellerstedt, & Gilliam (2014) support this observation, stating urban/rural differences have been an under-recognized factor shaping the dynamics of U.S. family planning care.

One 2012 study focused on rural women, comparing life stressors and barriers to timely prenatal care between rural and urban women with high-risk pregnancies (Kitsantas, Gaffney, & Cheema, 2012). The study used the 2006-2008 Pregnancy Risk Assessment Monitoring System (PRAMS), which collects data on maternal attitudes and experiences throughout pregnancy. Women living in ten U.S. States were included in the study (Alaska, Arkansas, Florida, Georgia, Hawaii, Louisiana, Minnesota, Nebraska, Ohio, and Utah). Using the Rural-Urban Commuting Area (RUCA) code system, the study designated codes 4-10 as rural. Approximately 70% of the 34,161 participants, age 12 years to 33 plus years, were identified as urban and 30% as rural.

Significant findings included more rural women reported smoking while pregnant, and more urban women reported they drank. The findings identified no difference in pregnancy intentions between the two groups, using a definition of pregnancy intention as whether the woman wanted the pregnancy now, wanted it at some point but not now, or did not want the

pregnancy ever. The most frequently reported life stressors were the same for both groups: moving, having a very sick family member, arguing more than usual with their partner, and not being able to pay their bills. The most frequently cited barriers to care were also the same for both cohorts: not enough money or insurance for visits and not being able to schedule an appointment when they wanted one. In addition, both rural and urban women experienced a significantly increased risk of not starting early prenatal care if they did not have a Medicaid card, did not have available childcare, had too many things going on, or did not want anyone to know they were pregnant. Having two or more barriers increased the risk of starting prenatal care late by 2.85 times for rural women and 2.01 times for urban women.

Strengths of this study include the large sample size and specifically differentiating rural versus urban cohorts. It identified risks for delayed prenatal care that are especially relevant in rural settings, such as a shortage of rural prenatal care providers and confidentiality. The findings also highlight the need for preconception care and reproductive life planning for all women. Weaknesses include the study provided a list of potential barriers to prenatal care for participants to select from, perhaps missing other important issues for both rural and urban women. A deeper understanding of the factors that empower women in making their reproductive health decisions was missing.

While an understanding of the barriers to care rural women face is important, it is equally important to understand the role health care providers' play. Studies demonstrate rural women have less access to health care services and professionals, and receive preventive health care, including preconception and reproductive health care, less often than urban women do (Chaung et al., 2012). However, in a 2011 study by McCall-Hosenfeld and Weisman, results indicated

living in a rural area, in and of itself, was not associated with receipt of preventive health care counseling.

The purpose of this study was to examine rural-urban health care disparities in preventive counseling. Using baseline data from the Central Pennsylvania Women's Health Study random digit-dial phone survey, the study sample included 2,002 women, age 18 to 45 years. Rural-urban commuting codes classified 61% of the women as urban, 22% as living in large rural areas, and 15% residing in small or isolated rural areas. Analysis of the data indicated women living in small or isolated rural areas were significantly less likely to report receiving smoking, alcohol/drug use, and birth control counseling when accessing health care. Rural women were also less likely to report receiving nutrition and physical activity counseling compared to the urban group. Overall, the reported rates of receiving preventive counseling services were low for all groups, with rural women less likely to report having received five out of six preventive counseling services. Factors predicting whether the woman received preventive counseling included younger age, higher educational level, having continuous health insurance coverage, seeing an obstetrician/gynecologist, and having the need for counseling (smoking status, obesity) (McCall-Hosenfeld & Weisman, 2011). These factors are particularly relevant for rural women, who often have less education, are more likely to be underinsured or uninsured, and lack access to specialty health care providers.

Strengths of this study include the large sample size differentiating cohorts by rural versus urban setting. Weaknesses include the data was collected by self-report, possibly making it subject to inaccurate recall. The results of this study further support the important role of health care providers in identifying the barriers and facilitators for women seeking reproductive health care services.

Campo, Askelson, Spies, and Losch (2010) conducted a similar study, focusing on identifying barriers and facilitators to preventing unintended pregnancy and improving contraceptive use among young adults living in a rural area. This study used focus groups, comprised of 106 women, age 18 to 30 years old, recruited from both urban and rural communities and university/community college campuses, in what the author reported was a rural, Midwestern state. The average age of the participants was 22 years, with more than 90% white, non-Hispanic women and the majority having completed some college. The focus group protocol consisted of 26 questions, and 10 probes asking more about contraceptive use, in order to collect information on the participants' perceptions of barriers and facilitators to contraceptive use. The results suggested three major categories of findings, relative to preventing unintended pregnancy and improving contraceptive use: barriers, facilitators, and knowledge.

Barriers identified included the cost of birth control, fear of parents knowing about contraceptive use, alcohol use, lack of planning, inconsistent use and forgetting to use, or difficulty using, a particular method, such as oral contraceptives. A facilitator for contraceptive use included prevention of pregnancy, with contraceptives providing "peace of mind." This sense of security made them feel they had control over their bodies and their health. The third category identified was knowledge, including lack of knowledge about newer methods available, side effects, not knowing about financial assistance available, and the incorrect estimation of the risk of becoming pregnant. Some women believed their fertility was out of their control and they would become pregnant when it was time.

Strengths of this small qualitative study include its specific focus on a rural, young adult, female population. A major weakness includes possible selection bias in the recruitment strategy, with the participants having a higher educational level than typically found with rural

women. Another significant weakness is the authors did not identify the definition of "rural" used. However, even with these limitations, the study identified significant gaps in knowledge and contraceptive use for this population. Although not the focus, the results suggest the importance of women having a sense of empowerment as evidenced by participants reporting they felt "in control of their bodies and health" when using contraception. Tools that support women's sense of empowerment and their reproductive decision-making, such as a RLP, warrant further study.

In summary, review of the reproductive life planning research relative to rural women, focused on the barriers and facilitators to accessing prenatal care, preventive services, and contraceptive/family planning services. None of the research reviewed examined what influences rural women's reproductive health decision-making processes and the impact these influences have when making their reproductive life plans. Therefore, research specifically examining the influences for rural women and their reproductive life planning, using the Health Promotion Model as an applicable conceptual framework, is indicated.

Conceptual Framework

Pender's Health Promotion Model (HPM) was the conceptual framework that served as the basis for this study (Pender, 2011a). The HPM states biological, psychological, and socio-cultural factors can influence behavior and decision-making.

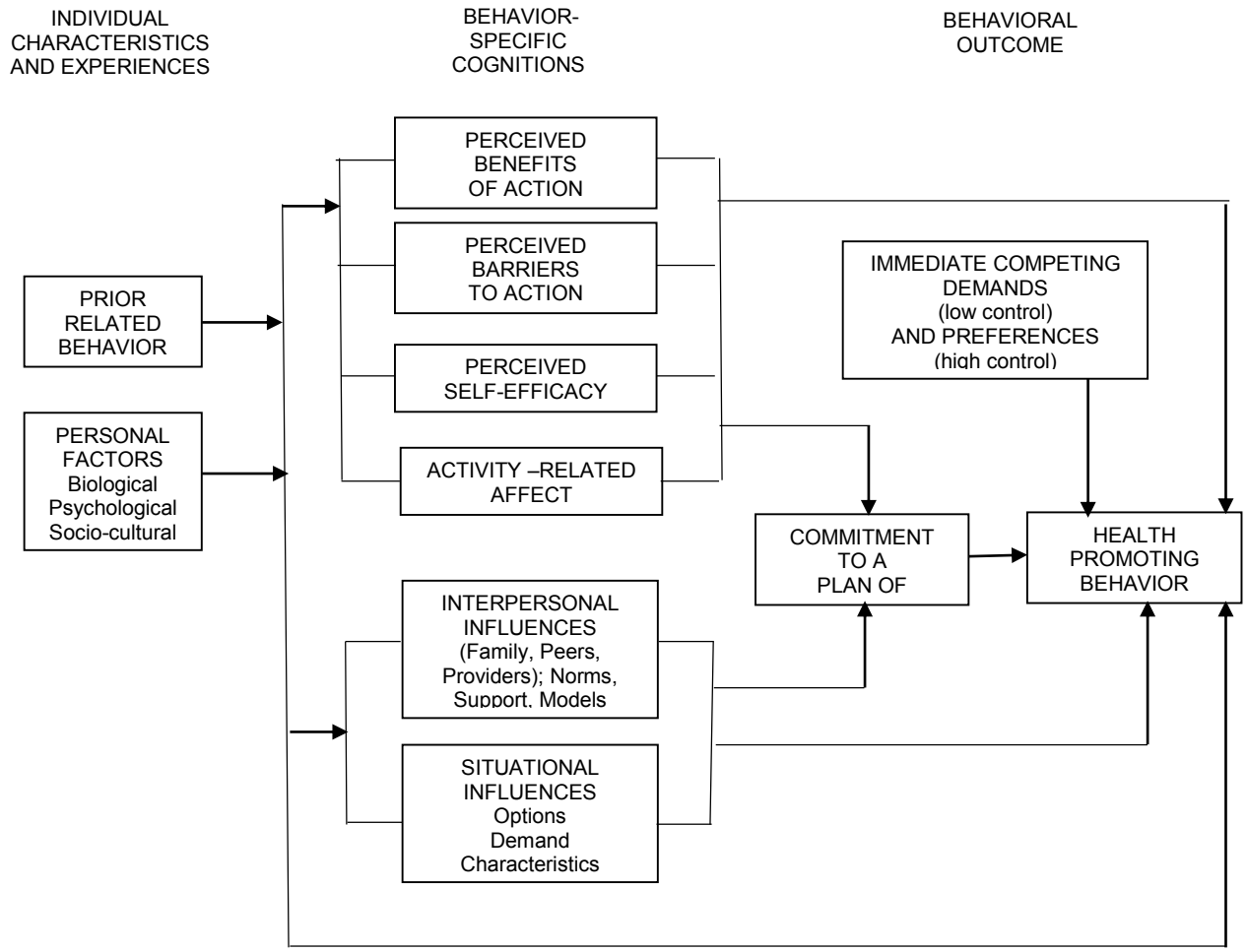


Figure 1. Health Promotion Model Diagram. Reproduced with permission from http://deepblue.lib.umich.edu/handle/2027.42/85351.

The Health Promotion Model (HPM) "assists nurses in understanding the major determinants of health behaviors as a basis for behavioral counseling to promote healthy

lifestyles" (Pender, 2011a, p. 2). The HPM identifies background factors, such as individual characteristics and experiences, which influence health. Focusing on the eight beliefs or influences as outlined in Figure 1, the nurse can use this model working with clients to assist them in changing behaviors to achieve a healthy lifestyle. "A thorough assessment of health, health beliefs, and health behaviors is the foundation for tailoring a health-protection-promotion plan to a given client" (Pender, 1996, p. 115).

The theoretical propositions derived from the HPM are applicable to reproductive life planning and the unique sociodemographic influences that may influence rural women's reproductive decision-making behaviors. The specific elements of the conceptual framework relevant to this study are:

- Prior related behavior (contraceptive use)
- Personal factors (age, race, ethnicity, educational level, religious beliefs)
- Perceived barriers (insurance status, cost of contraceptives)
- Perceived self-efficacy (contraceptive use)
- Activity-related affect (readiness and feelings if learned pregnant today)
- Interpersonal influences (family, health care providers)

The application of this conceptual framework in relation to reproductive health is sparse. One example is a study by Baheiraei et al. (2011) whose purpose was to identify health-promoting behaviors of reproductive aged women and their determinants. Proposed determinants included perceived social support and sociodemographic characteristics including age, marital status, education, occupation, sufficiency of income for expenses, and primary support source according to the author, A. Baheiraei (personal communication, December 21, 2014). The authors suggest that identifying the health-promoting behaviors of reproductive aged

women and their determinants need consideration if preventive strategies and interventions are to be effective in promoting women's health (Baheiraei, et al., 2011).

Summary

Significant improvement in reproductive health occurred during the twentieth century, with advances in effective contraception and the ability to plan if, and when, to have children. The literature supports the implementation of reproductive life planning to empower women, improve their health, and decrease unintended pregnancy rates. Important concepts to consider, when assisting women to implement an effective Reproductive Life Plan (RLP), are their educational background, their sense of empowerment, along with understanding their stage of development. All of the studies reported young adults found a Reproductive Life Plan a useful and acceptable tool that encouraged them to think about their reproductive future. All of the studies were conducted in health care settings. There are no studies to date evaluating the effectiveness of a RLP in reducing unintended pregnancy. Place also matters. Hawks, et al. (2002) suggest social norms, culture, physical, and social environment, as well as national health policies influence health behaviors. Little research is available to date focusing on rural women and their reproductive health needs.

Given the unique socio-cultural determinants of health for rural women, including religious, cultural, political, and economic influences, as well as limited access to care, it is likely that reproductive life planning may differ for this population. A major gap found in the literature is research focused on rural women that addresses the unique influences affecting their reproductive life choices. Further development and evaluation of reproductive life planning among rural women is necessary for a deeper understanding of their perceptions of individual

empowerment and the unique influences they experience. This is crucial in order for nursing to assist rural women to achieve their reproductive goals.

Purpose Statement

The literature has established that place matters, with little research dedicated to rural women and their reproductive health needs. Given the uniqueness of rural cultures, the purpose of this study was to explore reproductive life planning among rural, young adult women and to identify the factors that influence their reproductive decision-making behavior.

Methodology

Introduction

This section describes the methodology used to conduct the study, including the study design, the setting, the sample, and a description of how the survey instrument was developed and administered. A description of the analysis, and how protection of human subjects' rights was maintained, is also included.

Design

The study used a cross-sectional, quantitative, descriptive design using a survey instrument developed, based on samples found in the literature, with the Health Promotion Model as the conceptual framework.

Setting

The sample included residents of Amador and Calaveras County. Amador County is located in the Sierra Nevada Mountains of California, 45 miles southeast of Sacramento (Amador County, 2014), with Calaveras County bordering it on the south. Both Amador and Calaveras County are classified as nonmetropolitan counties by the Economic Research Service (USDA ERS, 2013), consistent with current rural/urban definitions. In addition, both counties are classified as 6 (nonmetro county with an urban population of 2,500 to 19,999, adjacent to a metro area) in the 2013 ERS Rural Urban Commuting Code (RUCC) system (U.S. Department of Agriculture Economic Research Service [USDA ERS], 2013). Calaveras is approximately twice the size of Amador in land mass, but has a very similar population in age distribution, race/ethnic distribution, education level, income level, and political makeup as shown in Table 1. However, Calaveras County residents had a much higher percentage of religious affiliation in 2010 than both Amador and California, with 69% affiliated with a religious organization. Of this

69%, the majority (80%) were Catholic, followed by Evangelical Protestant (Association of Religious Data Archives [ARDA], 2010). Amador County had fewer residents reporting a religious affiliation than both Calaveras County and California, with only 24.4% in 2010. The predominant religious group in Amador County was also Catholic, followed by Evangelical Protestant, the Church of Jesus Christ of Latter-day Saints, and mainline Protestant, which includes Episcopal, Lutheran, and Methodist churches (ARDA, 2010).

Table 1

Comparison of Amador County, Calaveras County, and California

	Amador County	Calaveras County	California
Geography[a]			
Land area in square miles, 2010	594.6	1,0200	155,7792
Persons per square mile, 2010	64.1	44.7	239.1
Rural Urban Commuting Code (RUCC)	6	6	
Population[a]			
2013 estimate	36,519	44,515	38,332,521
Persons under 5 years	3.6%	3.8%	6.5%
Persons under 18 years	15.5%	18.0%	23.9%
Persons 65 years and over	24.2%	24.3%	12.5%
Female persons, percent	46.9%	50.0%	50.3%
Race/Ethnicity[a]			
White alone	90.9%	92.1%	73.5%
Hispanic or Latino	12.7%	11.1%	38.4%
African-American or African American alone	2.1%	1.0%	6.6%
American Indian and Alaska Native	2.1%	1.8%	1.7%
Asian alone	1.3%	1.5%	14.1%
Native Hawaiian and Other Pacific Islander alone	0.2%	0.2%	0.5%
Two or More Races	3.3%	3.5%	3.7%
Education[a]			
High school graduate or higher, percent of persons age 25+, 2008-2012	87.5%	92.8%	81.0%
Bachelor's degree or higher, percent of persons age 25+, 2008-2012	18.8%	20.8%	30.5%
Income[a]			
Per capita income in past 12 months (2012 dollars), 2008-2012	$26,969	$28,892	$29,551
Persons below poverty level, percent, 2008-2012	10.5%	10.4%	15.3%
Religion[b]			
Percent with religious affiliation (2010)	24.4%	69%	45%
Politics[c]			
Percent registered to vote	77.6%	75%	73.4%
Republicans	45.04%	42.3%	28.73%
Democrats	31.39%	30.8%	43.58%

Notes: [a] http://quickfacts.census.gov/qfd/maps/california_map.html

[b] http://www.thearda.com/rcms2010/index.asp

[c] California Secretary of State, 2013

The site selected for data collection was a beauty salon located in the city of Jackson in Amador County. The rationale for selecting a local beauty salon was to collect information from community-based participants who may or may not be motivated to seek health care or have access to health care services. The salon chosen catered to a younger population with seven of the eight stylists between the ages of 18 and 35 years. Two of the stylists lived in neighboring Calaveras County, drawing in a number of clients from that region. One stylist was fluent in Spanish. The shop was open Monday through Saturday from 9 A.M. to 6 P.M. but hours were flexible, based on each stylists' personal schedule.

Sample

The target sample size was thirty women to provide an adequate range of responses within the time and resource constraints of the investigation. Inclusion criteria were females, non-pregnant, age 18-35 years, English speaking and reading, and living in Amador or Calaveras County. Exclusion criteria were non-English speakers, pregnant women, women who can no longer bear children, and non-Amador/Calaveras County residents. The Primary Investigator (PI) speaks only English, thus non-English speakers were excluded. Pregnant women and those not able to bear children were excluded for the purpose of the study, as their responses might be fundamentally different based on these factors. Recruitment started July 18, 2014 and continued until August 4, 2014. The PI was present at the salon Monday through Saturday, during the hours the beauty salon was open for business, and when the stylists informed the PI age appropriate clients would be present in the salon. Data collection continued until thirty eligible participants completed the survey, which included both stylists and customers. Thirty-three surveys were completed. Three surveys were excluded from the analysis because two participants reported their age as older than 35 years and one reported residency outside of

Amador or Calaveras County. Two women identified as eligible to participate declined, for a refusal rate of 6%. One hundred percent of those eligible, and who agreed to participate, completed the survey. A description of the sample is included in the following chapter**.**

Instrument

No suitable established tool was currently available to measure rural women's reproductive life planning, thus constructing a new tool for this study was necessary. The tool used in this study, "Your Future Family Plans" (see Appendix A), was developed by the PI based on the literature review, the conceptual framework, and other reproductive life planning tools. Examples of tools that were available included "My Reproductive Hopes" used in a study in urban Illinois (Bello et al., 2013), Dunlop et al.'s (2010), the "reproductive plans assessment questionnaire" used in public clinics in Atlanta, Georgia, and the American College of Nurse-Midwives' "Planning Your Family: Developing a Reproductive Life Plan" (Files et al., 2011). Questions related to the desire to have children, the desired number and spacing of children, pregnancy planning, contraceptive use, and basic demographics were included. The instrument development process was facilitated by the PI's enrollment in "Psychology 207: Survey and Questionnaire Research Methods," a University of California Davis graduate course that focused on enhancing skills in tool development.

Based on the HPM, the tool was constructed with the intent to identify background or modifying factors, such as individual characteristics and experiences, having the potential to influence rural women's reproductive life planning. The proposed modifying factors included demographic characteristics (age, education, relationship status, and race/ethnicity), prior related behavior, situational factors, current behavioral factors, and interpersonal influences. In order to identify prior related behavior influences, questions about past contraceptive use, and whether

the woman had discontinued contraceptive use in the past, were included. If a participant reported a history of discontinued contraceptive use, she was then asked questions addressing the reason for stopping a method. Identification of situational influences included questions asking about current health insurance status, county of residence, and current number of children. To identify behavioral influences, questions regarding current contraceptive use, the importance of pregnancy planning, current readiness for children, reactions to learning she was pregnant today, and the ideal number and spacing of future pregnancies were included. Questions regarding the importance of religion in her daily life, and whether she had a regular source of health care, were included to identify interpersonal influences. Finally, questions addressing the woman's perception of the tool's overall usefulness when thinking about her future family plans were incorporated. The instrument was designed to be administered electronically using Qualtric, allowing use of the program branching function, or skip logic. Participants only viewed the questions relevant to them. The format of the questions was primarily multiple-choice with some fill-in-the-blank. The tool had a Flesch-Kincaid reading grade level of 4.2.

The instrument was reviewed and critiqued by the thesis committee members, the Psychology 207 instructor, and female classmates, ages 18 to 35 years, who were in the Psychology 207 course. The tool was then pretested with five young women raised in or living in rural communities. Revisions were made to the instrument, based on the feedback received.

Procedures

To protect the confidentiality of participants, a flyer (Appendix B) describing the purpose of the study, eligibility criteria, and a request for participation, was provided to all potential participants upon entering the selected site. The primary investigator (PI) was present in the waiting area. If a woman agreed to participate, the PI asked a series of screening questions. If

the woman was determined to be eligible, she was given a consent information sheet (see Appendix C) and the PI's contact information along with the thesis chair's. The woman then completed the on-line survey using an iPad provided by the PI. The range of time to complete the survey was approximately 5 to 15 minutes. When participants were finished, each received a pamphlet titled "Show Your Love! Steps to a Healthier Me!" and a lipstick pen as a thank you gift. The pamphlet, developed by the Centers for Disease Control and Prevention (CDC) is a trifold pamphlet that includes preconception care information (see Appendix D). Modifications were made to the pamphlet prior to use, with the permission of the CDC, to reflect "health care provider" rather than "physician" as the source of health care. The majority of women chose not to keep the consent/contact information sheet; however, most took the pamphlet and lipstick pen.

Protection of Human Subjects

The University of California, Davis Institutional Review Board approval was obtained prior to data collection. Participation was voluntary and anonymous. To ensure anonymity, signed consents were not obtained; however, a consent information sheet was provided (see Appendix C). Identifiable data traceable to individual participants was not collected. Participants were informed they could skip any of the questions they did not want to answer and could stop the survey at any time.

Analysis

The data were entered into an Excel spreadsheet and analyzed using descriptive statistics. For continuous variables, means, standard deviations, and ranges were computed. For categorical variables, frequencies and percentages of responses were compiled. Qualitative comments were compiled as stated by the participants.

Results

Introduction

The results of the study were obtained by entering the data into an Excel spreadsheet and then analyzing the data using descriptive statistics. This chapter discusses the sample's demographic characteristics including age, residency, education, marital status, and race/ethnicity. Findings related to religion, current health insurance coverage, and regular health care provider status are included followed by a description of the participants' current and future plans for children, current and past contraceptive use and feedback about the survey.

Description of the Sample

Table 2 is a summary of the demographic characteristics of the 30 eligible participants.

Table 2

Characteristics of Study Participants

Future Family Plans Survey N=30			
Variables	n	%	M (SD)
Age			26.7 (5.6)
18-20	5	16	
21-23	3	10	
24-26	8	27	
27-29	5	16	
30-32	1	3	
33-35	8	27	
County of residence			
Amador	19	63	
Calaveras	11	37	
Education			
Less high school	0	0	
High School	1	3	
Some college	24	80	
Bachelor's or higher	5	17	
Marital status			
Married/domestic partner	11	37	
Single (never married)	17	57	
Divorced	2	7	
Widowed	0	0	
Separated	0	0	
Race/ethnicity			
White	20	67	
Hispanic or Latino	7	23	
African-American/AA	0	0	
Native American or American Indian	1	3	
Asian/Pacific Islander	0	0	
Something else	2	7	

Sixty-three percent of the participants lived in Amador County with the majority (95%) having living there for more than one year. Of those women living in Amador County for more than one year, the reported range of residency was 2 to 35 years with a mean of 17.5 years (SD 9.5). Slightly more than one third, (37%), of the participants lived in neighboring Calaveras County. Calaveras County residents were not included in the data collection until after completion of the final survey instrument and therefore were not asked the length of time they had lived in Calaveras County. Regarding the importance of religion, the majority reported it played some role in their daily lives (see Figure 2).

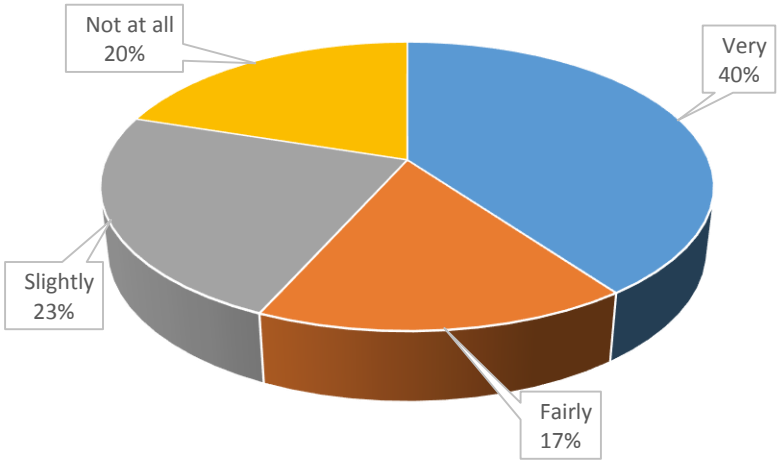


Figure 2. Importance of Religion in Daily Life (N = 30)

Eighty percent of the women reported they were covered by health insurance and 17% reported they were not, with one participant indicating she did not know. Two-thirds (67%) reported having a regular healthcare provider and ten participants (33%) responded they did not. In summary, the sample included predominantly single, white, educated, religious young adult women who were long-term rural residents, with health insurance and a regular healthcare provider.

Current and Future Plans Regarding Children

Of the thirty participants, 53% (n = 16) reported currently having children and 47% did not. Of those who reported having children, the majority of their children were biological with only one woman reporting she had two stepchildren. None reported having adopted or foster children. The range of the current number of children was 1 to 4. Of the sixteen women who currently had children, 63% (n=10) indicated that they wanted to have more. Of this 63%, most reported wanting one or two more children (see Table 3).

Table 3
How many more children do you want to have?

Answer	Response	%
1 child	5	50%
2 children	4	40%
3 children	1	10%

The participants indicated they wanted to wait one to 8 years between births of future children with a mean of 4.10 years (SD = 2.3).

Of the 47% (n=14) who reported that they currently did not have children, only one participant reported she did not want to have children in the future. The most frequent answer to the question "How many children do you want to have?" was two. One participant reported she was not sure and none of the women reported wanting more than three (see Table 4).

Table 4
How many children do you want to have?

Answer	Response	%
None	1	7%
1 child	2	14%
2 children	7	50%
3 children	3	21%
Not sure	1	7%

When asked about birth spacing, those who currently did not have children but desired them in the future, reported wanting to space children by one to three years with a mean of 2.09 years (SD = .54). The majority of those who currently did not have children reported they wanted to have their first child one to five years from now (see Table 5).

Table 5
When would you like to have your first child?

Answer	Response	%
Sometime in the next 12 months	2	14%
One to five years from now	8	57%
More than five years from now	2	14%
I'm not sure when	2	14%

Of all the participants who desired children in the future (n=23), the percentage wanting to finish childbearing by age 30 (43%) was equivalent to those wanting to finish by age 35 years (43%). Thirteen percent reported they wanted to finish childbearing by age 40 years and none responded by age 25 years or age 45 years.

When asked how ready they would be if they learned they were pregnant today (N=30), more reported feeling "not ready" than "ready" with 17% unsure (See Figure 3).

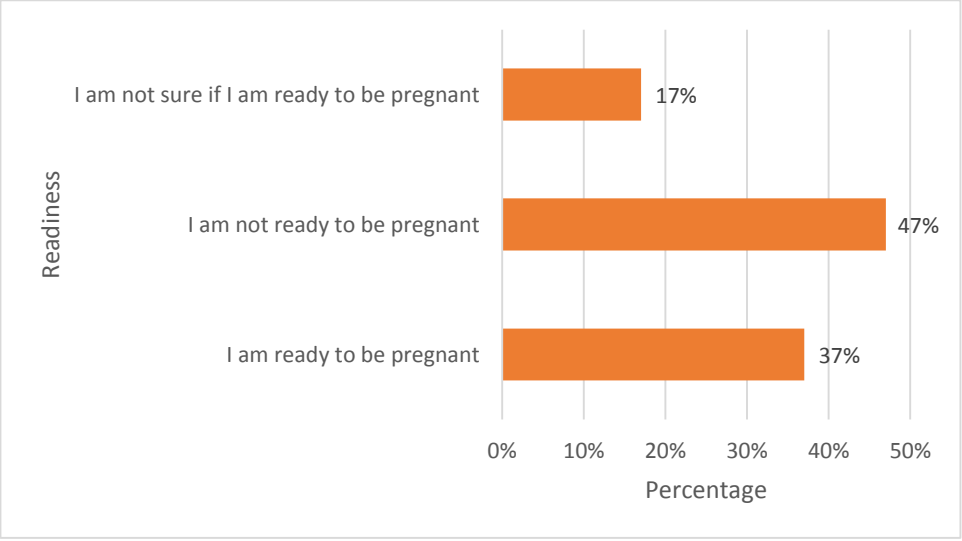


Figure 3. Pregnancy Readiness (N=30)

More women reported they would feel “very happy” or “fairly happy” versus “very unhappy” or “fairly unhappy” if they learned they were pregnant today (See Figure 4).

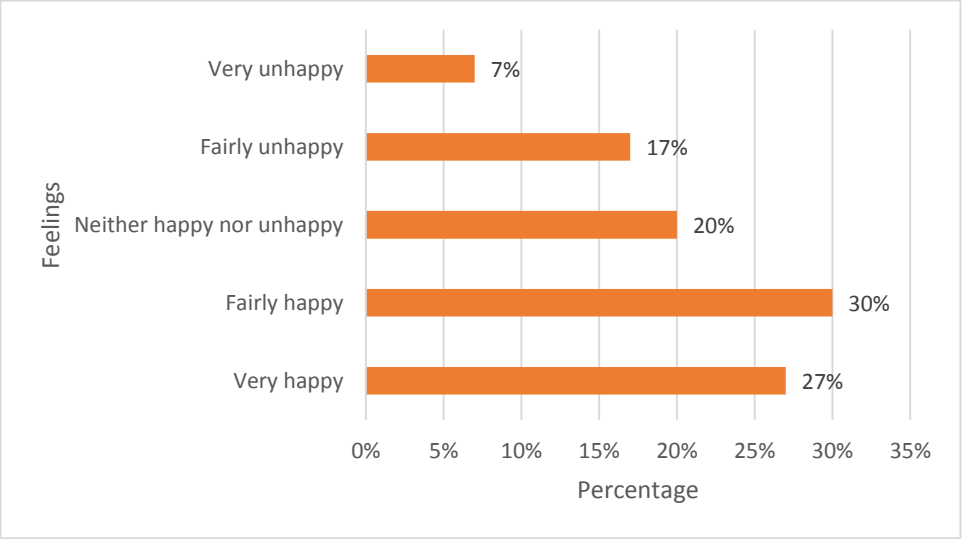


Figure 4. Feelings if Learned Pregnant Today (N=30)

Finally, when asked how important it was for them to not get pregnant, the majority reported it was important. No one responded “not sure” (see Figure 5).

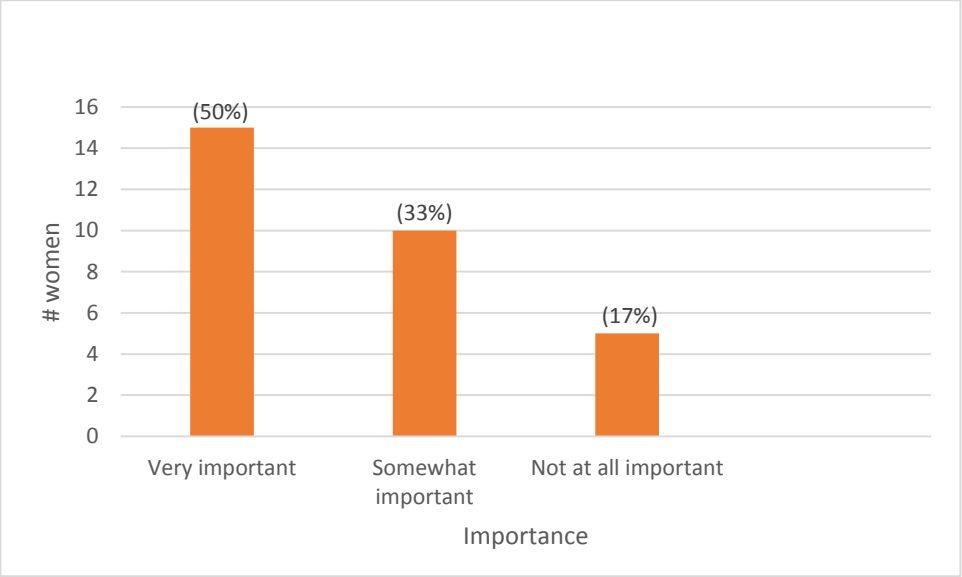


Figure 5. Importance of Not Getting Pregnant (N=30)

Current and Past Contraceptive Use

Of the thirty participants, 47% (n=14) reported they were currently using a method of birth control while 53% (n=16) were not. A series of birth control methods were listed with multiple responses allowed by the participant (e.g. participant could choose both birth control pills and condoms as current methods of birth control). Of the current methods reported being used, birth control pills (29.6%), and condoms (29.6%) were the most frequently reported followed by abstinence (18.5%). (See Figure 6). One participant reported an "other" method (3.7%) which she declined to describe.

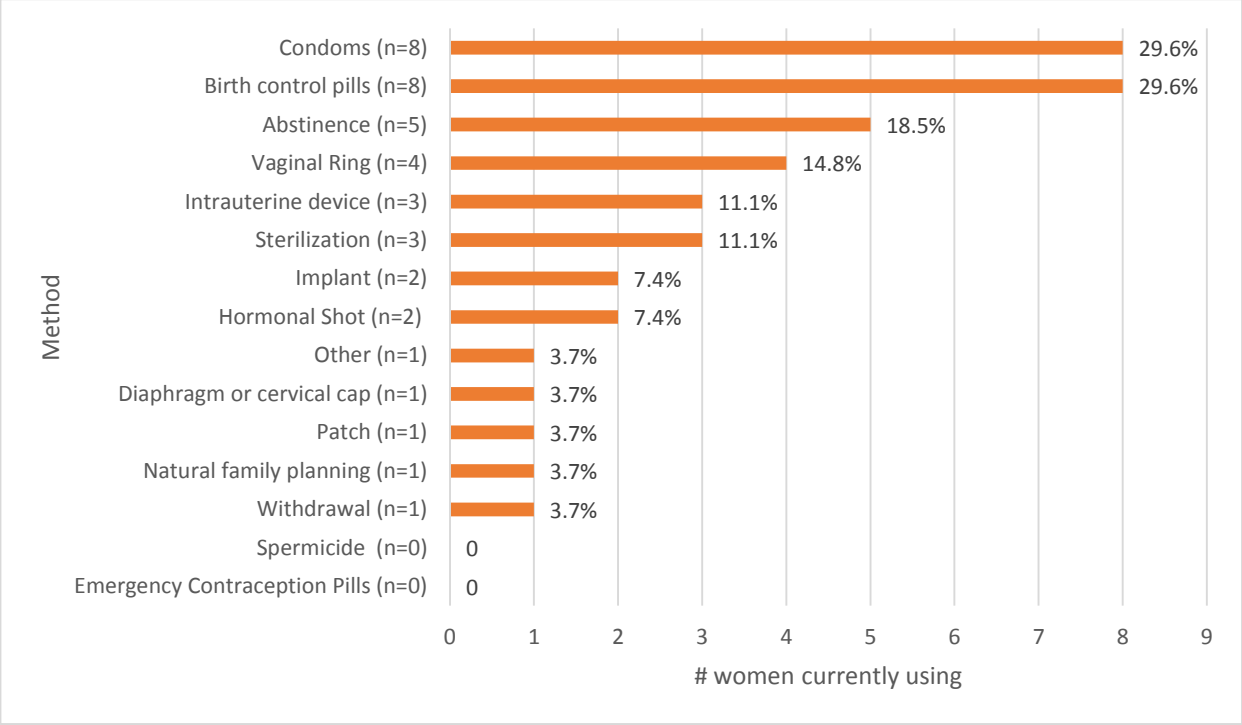


Figure 6. Current Methods of Birth Control (n=27)

Of the sixteen participants who were not currently using birth control, 13 (81%) reported having used it in the past. When those who reported currently or ever having used birth control (n=27) were asked if they had ever stopped using a method, 96% (n=26) responded affirmatively. Multiple responses to this question were allowed (see Figure 7). The top three

reasons for stopping a method in the past were side effects (80%), “didn’t like using it” (58.3%), and “forgot to use it” (32%). An equal number reported they got pregnant while on a method (28%) or could not afford to pay for it (29.1%).

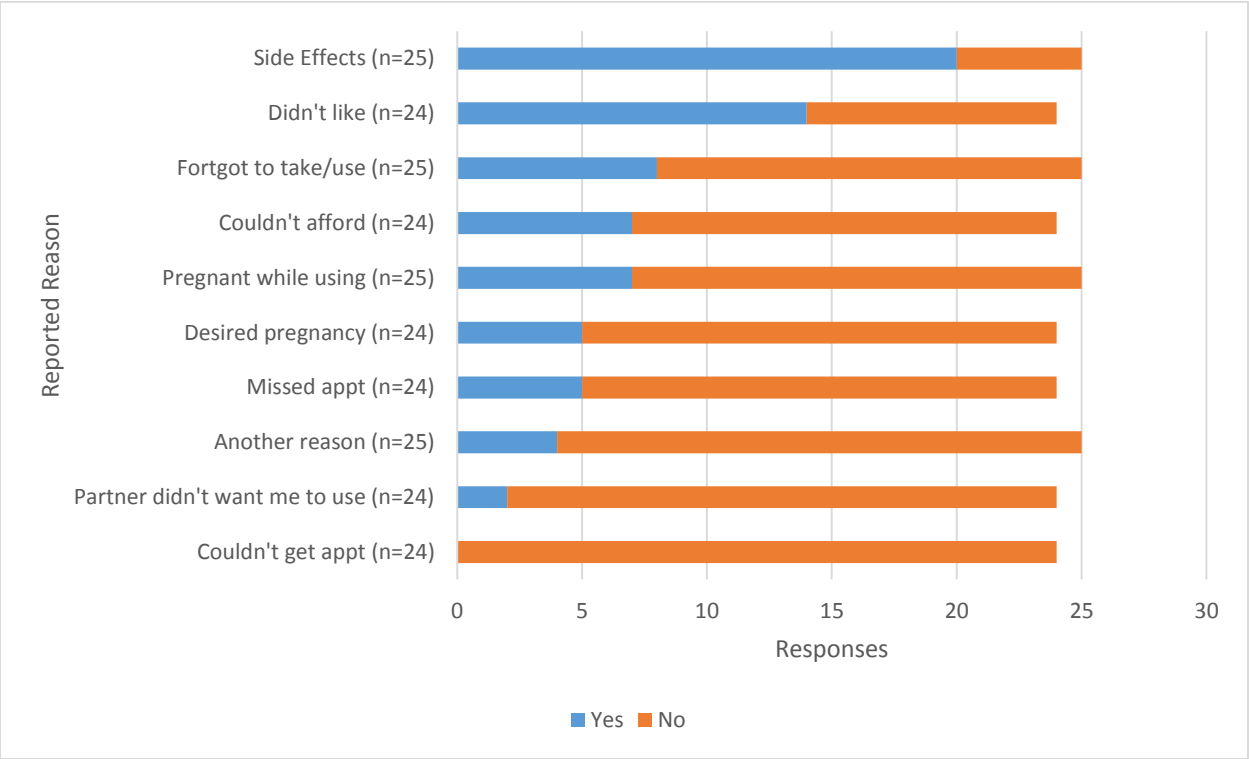


Figure 7. Reasons for Stopping a Birth Control Method

Four participants responded “another reason” for stopping their method of birth control, reporting in narrative format “no need to be on it” (n=1), “lowered sex drive significantly” (n=1), “not sexually active at the moment” (n=1), and “ I was taking it for regulating purposes and no longer needed it” (n=1) as the other reasons. Of the three women who reported never using a method of birth control, reasons reported were “I didn’t think it was healthy to use” (n=1), “didn’t think I could use for medical reasons” (n=1), and “afraid someone would find out” (n=1).

Feedback Regarding the Survey

Finally, participants were asked a series of questions evaluating the survey overall. When asked how difficult it was to complete, 97% responded it was “very easy” and 3%

"somewhat easy". All thirty participants reported the questions were "very understandable" and 77% indicated that the survey was "somewhat interesting" and 23% reporting it was "very interesting". When asked how helpful the survey was in assisting them in thinking about their future family plans, 30% felt it was "very helpful", 67% felt it was "somewhat helpful", and one participant reported that it was "somewhat unhelpful".

Additional Findings

Of the sixteen women reporting they were not currently using birth control, five (31.2%) reported it was "very important" and seven (43.8%) reported it was "somewhat important" not to get pregnant right now. Of the ten women reporting they wanted to wait one to five years or more before having a child, half were not currently using a method of birth control. Of the twelve women reporting religion was a "very important" part of their daily life, eight (66.6%) reported not currently using a method of birth control and two (40%) of the five women reporting religion was "fairly important" were not.

Summary

Thirty participants completed a reproductive life planning survey, which assessed their current and future plans to have children, their current and past birth control use, and the usefulness of the survey in facilitating their thinking about their future family plans. The women were between the ages of 18 and 35 years, with most being long-term residents of rural communities, white, educated, and religious. Most were covered by health insurance and had a regular healthcare provider. The majority of participants, both those whom were currently mothers and those who were not, indicated they want to have children in the future. Most felt they would feel "very happy" or "fairly happy" if they were to become pregnant today, but more than half felt they were not ready or unsure if they were ready for a pregnancy. In addition, less

than half were currently using contraception. Of those who were or had ever used birth control, most had stopped a method in the past for a variety of reasons. Overall, participants indicated the survey was easy to complete, understandable, interesting, and helpful for them in thinking about future family plans.

Discussion

Introduction

The purpose of this cross-sectional descriptive study was explore the use of reproductive life planning among rural young adult women, using a specifically designed survey based on the Health Promotion Model (HPM). The Health Promotion Model (HPM) states biological, psychological, and socio-cultural factors can influence behavior and decision-making. The elements of the conceptual framework used in the study were:

- Prior related behavior (contraceptive use)
- Personal factors (age, race, ethnicity, educational level, religious beliefs)
- Perceived barriers (insurance status, cost of contraceptives)
- Perceived self-efficacy (contraceptive use)
- Activity-related affect (readiness and feelings if learned pregnant today)
- Interpersonal influences (family, health care providers)

The survey questions were developed to identify the factors that might influence rural women's decision-making and behavior. Thirty rural, young adult women age 18 to 35 years who were residents of Amador or Calaveras County, California participated in the study. The following is a discussion of the findings, the limitations, and strengths of the study, along with the relationship of the findings to previous studies and to the conceptual framework. A discussion of implications for practice, research, theory development, and policy is included.

Summary of Major Findings

The majority of the participants were single, long-term residents of rural communities. The predominant race/ethnicity reported was white or Hispanic. Most of the participants were high school graduates and some (80%) had completed some post-secondary education. Religion

played an important role in most of the women's lives. Eighty percent reported having health care coverage and 67% a regular health care provider. Almost an equal number of the participants had children compared to those who did not. More than half of those who already had children expressed a desire to have more. Only one woman who did not currently have children reported she did not want to have any in the future. More than half of the women who did not currently have children reported wanting them in the future and were planning to wait one to five years before becoming pregnant. Women who desired future pregnancies also planned to finish having their children by age 30 to 35 years. When all of the women were asked how ready they would feel if they were to learn they were pregnant today, 46% reported they were "not ready" to be pregnant although 57% indicated that they would feel either "very happy" or "fairly happy". Half reported it was "very important" not to get pregnant now and one third reported it was "somewhat important". Of the women reporting it was very or somewhat important to not get pregnant, only 47% reported current use of a contraceptive method, with oral contraceptives and condoms being the most commonly reported. Of all the women not currently using a method of birth control, 81% had used contraception in the past and only three women reported never using it. Of all the women who currently or have ever used a method of birth control, 96% reported they had stopped a method in the past. The top three reasons for discontinuing use of a method in the past were side effects (80%), didn't like using it (58%), and forgot to use it (32%). Other reasons given included they got pregnant while on a method (28%) or could not afford to pay for it (29%). Reasons reported for never having used birth control were a personal health issue or concern someone would find out. The majority of the participants felt the survey was easy, understandable, and interesting and was either somewhat or very helpful in relation to their future family plans.

Strengths of this study included the fact that 100% of the women who started the survey completed it. Only two women who were eligible to take the survey declined. The iPad proved to be an effective method to administer the survey, maintaining privacy and ease of use for the participants. In addition, using the Qualtric software program, skip patterns were very effective in targeting appropriate questions for each individual. This helped ensure effective use of the participant's time to complete the survey and that only questions relevant to that woman were asked. The women completing the survey were open to the questions asked and answered each question presented. Responses included only seven "decline to answer" answers regarding methods of birth control currently in use, or used in the past. The sampling location was creative in that it was not a health care facility, with participants recruited who may not be motivated and/or able to access reproductive health care services. The ethnic diversity in the sample was another strength. Additional strengths of the study included the fact that study participants were rural women, often an overlooked group in research, and the fact that religious influence was included as a variable. Finally, the survey included the importance of not getting pregnant and what their feelings would be if they learned they were pregnant today, two variables not found in prior studies.

In summary, particularly important findings of this study were high percentage of participants reporting having health insurance coverage, having a regular provider, the importance of religion in their daily lives, and a current or past contraceptive use history. A high percentage were currently not using contraception but also reported a desire for children in the future and not feeling ready to be pregnant now.

Limitations

Limitations of this study include the small sample drawn from only one geographic area, which, given the diversity of rural populations, limits the generalizability of the findings. Additionally, the omission of information regarding income level, a potential determinant of health behavior, is important to note. In addition, a pre-screening question excluded women who were sterile, and resulted in some confusion in survey question 7 that asked about methods currently using or used in the past, included tubal ligation. This response was not possible if the participant was sterile. The survey also did not ask Calaveras participants how long they had lived in their community. The scope of the survey did not include of men, nor prior untended pregnancy. Therefore, neither men, nor a question asking if the participants had ever experienced an unintended pregnancy, were included.

Discussion of Findings in Relation to Previous Research and Conceptual Framework

Although small, the sample reflected the rural population from which it was drawn. The proportion of race/ethnicities of the sample was similar to both counties as a whole, with the majority being white or Hispanic. All the participants had graduated high school, which is reflective not only of Amador and Calaveras Counties but also rural communities overall. Similarly, the percentage of participants with a Bachelor's degree, or higher, was comparable to the county rates and rural women in general.

The survey findings support the findings of previous research (Campos, 2008; Dunlop et al., 2010; Bello et al., 2013; Stern et al., 2013), suggesting that the rural women in this study were similar to other study participants in regards to their future family plans. For example, 57% percent of the women in this study who did not have children reported they wanted to wait one to five years before having a child, which is similar to Dunlop et al.'s results (2010) where 30.6%

indicated they wanted to wait a year or more before having a child. Of those women who expressed a desire to wait a year or more before having a child in the Dunlop study, 45% were at risk for unintended pregnancy. Fifty percent of the participants in this study, who did not have children and who reported they wanted to wait one to five or more years before having a child, were also not currently using a method of birth control. In Stern et al.'s study (2013), the mean preferred age for last child was 34-35 years, which is consistent with the results of this study where 86% of the participants reported wanting to finish childbearing by age 30 or 35 years. Barriers to contraceptive use reported in the current study were consistent with Campo's (2008) findings, which indicated that common barriers for young women to effective contraceptive use were expense, inconsistent use (i.e. "forgetting to use"), and side effects. The reasons reported for never having used birth control were also consistent with Campo's findings (2008). The majority of participants in the current study responded favorably to the reproductive life planning survey, demonstrating acceptability levels consistent with Bello et al. (2013), Dunlop et al. (2010), and Stern et al.'s (2013) findings.

The prior reproductive life planning studies did not address the influence of religion. However, the rural sociological literature suggests religion is an important influence for many rural women (Dillon & Savage, 2006) and the results of this study supports that premise. This study's findings revealed religion played an important role in most of the women's lives, suggesting personal religious/spiritual beliefs may be an important influence on behavior and reproductive decision-making among rural women. The 2011 Guttmacher reported a large majority of sexually active women of all religious denominations, urban and rural, practiced contraception and used highly effective methods (Jones & Dreweke, 2011). However, in this study, of the 17 women who reported that religion was "very important" or "fairly important" in

their daily lives, the majority (59%) reported they were not currently using birth control. These results indicate a need for further research, examining whether religious influence is greater for rural women.

In summary, rural women in this study were similar to rural and urban women described in other studies (Campos, 2008; Dunlop et. al, 2010; Bello et. al, 2013; Stern et. al, 2013). The sample was reflective of the community, with the exception of a higher percentage of Hispanic participants. An important finding in all of the research is that many women who indicate that it is important they not become pregnant now are at risk of unintended pregnancy. This is in spite of having health care coverage, a regular health care provider, and access to contraceptives. It is vital that health care providers address this apparent inconsistency, by asking the important questions at each encounter about the individual's pregnancy intentions, what she/he is doing to accomplish that goal, as well as identifying the barriers and benefits for each individual woman/man/couple to achieve their personal reproductive goals.

Furthermore, the findings support the use of the Health Promotion Model framework, used to guide this study, as a relevant model for future research. The HPM framework states one primary source of interpersonal influence is health care providers (Pender, et al., 2011b). With 67% of study participants reporting having a regular health care provider, the HPM suggests these providers may play a key role in influencing women to consider their reproductive life goals and in helping to achieve them. Another key variable in the HPM is the perceived barriers to action, and consists of perceptions regarding the unavailability, inconvenience, expense, difficulty, or excessive time needed to do the action. Perceived self-efficacy, another variable, is the feeling of personal capability to carry out an action (Pender, et al., 2011b). Participants reporting they could not afford a method of birth control (perceived barrier) and those reporting

they forgot to use it or became pregnant while using a method (perceived self-efficacy) are examples in this study demonstrating the significance of these variables. Finally, personal factors are variables in the HPM, and categorized as biologic, psychologic, and sociocultural. Specific to this study, sociocultural factors, such as religious beliefs, may play an important role in influencing behavior. In this study, more than half of the women who reported that religion played a role in their daily lives also reported that they were not currently using a method of birth control, in contrast to the 2011 Guttmacher report examining religion and contraceptive use in all reproductive age women (Jones & Dreweke, 2011).

Implications for Practice, Theory Development, Policy, and Research

The results of this study have broad implications for nursing practice, theory development, policy, and research. First, recognition of the powerful role health care providers' play in influencing patients' behavior and reproductive decision-making, particularly with rural populations, is critical. The Affordable Care Act (ACA) supports the principle that every American has the right to affordable and effective health insurance coverage regardless of income or health status (Sonfield & Pollack, 2013). The ACA guarantees preventive services, including birth control, are covered, and increases access to family planning services for low income women (National Partnership for Women and Families, 2012). Although a basic covered service, the unanswered question is who will provide these reproductive services most efficiently and in what manner? Nurses, with their foundational focus on health promotion and person/family-centered care, as well as serving at the forefront in promoting reproductive life planning, are key to providing quality, cost effective reproductive life planning counseling. Reproductive life planning should be included in all health promotion visits for all women, men,

and teens of reproductive age. School nurses can play an integral role in providing family life planning education with the students and families they serve.

In relation to theory development, the Health Promotion Model, which has been applied to a very limited extent to reproductive life planning, proved to be a valuable conceptual framework in this study. The HPM's emphasis on biological, psychological, and socio-cultural factors as influences of behavior and decision-making, proved relevant in this study. Further research is recommended using the HPM, to ascertain its effectiveness in identifying influences on behavior and reproductive health decision-making. This research needs to include religious and cultural influences, including rural culture. In addition to the HPM, theories from other disciplines, may aid women and men to effectively plan and achieve their life goals, and should be applied, and tested. For example, "Promoting Causal Agency—The Self Determined Learning Model of Instruction" (Wehmeyer, et al., 2000), typically used in education with developmentally delayed students, focuses on teaching students to set goals, make decisions and choices, solve problems, and self-advocate (Wehmeyer, et al., 2000). This model may be useful in teaching skills applicable to reproductive life planning.

Finally, policy initiatives to support reproductive life planning are needed, particularly in the area of reimbursement to pay for provision of RLP counseling. California's Family Planning, Access, Care, and Treatment (FPACT) program is a model that recognizes the need to reimburse for counseling and education services by nurses, nurse practitioners, nurse midwives, physician assistants, and physicians (California Department of Health Care Services, 2014). Reimbursement for services provided by nurses is particularly important to rural settings, where registered nurses often are the sole provider of health care (Winters, 2013). The feasibility of the

application of the FPACT model in other states should be explored. Mandated reimbursement by all health insurance programs for RLP counseling should be addressed.

The intent of reproductive life planning is not only to decrease the rate of unintended pregnancy. Its intent is also to encourage women and men to achieve healthy lifestyles, resulting in healthy birth outcomes, if that is their goal, and to prevent or treat other health conditions. A 2008 report released by the Trust for America's Health and the Robert Wood Johnson Foundation demonstrated that an annual investment of $10 per person in proven, community-based public health programs could save the United States more than $16 billion within five years—a $5.60 return for every $1 invested (Robert Wood Johnson Foundation, 2013). In addition, a 2010 policy review by the Guttmacher Institute reported that every dollar invested in the publicly funded family planning effort that year saved $5.68 (Guttmacher, 2013), a significant economic outcome to consider.

In conclusion, these practice, theory, and policy recommendations all merit further research. An essential area of research is determining if reproductive life planning is effective in decreasing the incidence of unplanned pregnancy. In addition, studies including men, particularly rural men, are indicated. With the findings in this study highlighting the "disconnect" of sexually active women who report they do not want to get pregnant yet are not using contraception, research addressing this phenomenon is crucial. Further areas of future research include determining the best methods to promote reproductive life planning. Is print media as effective as social media? Alternatively, is addressing RLP at each provider visit more effective? Should RLP be included in high school health class curricula, or even sooner? Additional topics for future research include understanding the influence of religion on RLP among both rural and urban women/couples, and the importance of income and RLP. Finally,

comparing the results from this study with other rural populations, including other regions in the US and internationally, is recommended.

Summary

Reproductive life planning is an essential process for each individual of reproductive age, subject to personal, biological, social, and cultural influences as well as their own perceptions. This study addressed RLP in a sample of rural women age 18 to 35 years living in two northern California counties. The findings suggest that further research is indicated, including examination of the influence of religion on rural women's reproductive decision-making, and research examining the disconnect of some women reporting that they are not ready to be pregnant but are not using contraception. Nurses and other health care providers must continue to facilitate positive behavior change and reproductive decision-making through effective reproductive life planning in order to reduce unintended pregnancy rates and its consequences for women, families, children, and society. Empowering women, men, and couples to plan and achieve their reproductive life goals will enhance the health of future generations.

References

Advocates for Youth. (2002). *Growth and development, ages 18 and over – What parents need to know.* Retrieved from http://www.advocatesforyouth.org/storage/advfy/documents/18_over.pdf

Amador County. (2014). *About the county*. Retrieved January 31, 1015 from http://www.co.amador.ca.us/about/about-the-county

Association of Religious Data Archives. (2010). *U.S. Congregational Membership Reports*. Retrieved January 31, 2015 from the ARDA website: http://www.thearda.com/rcms2010/index.asp

Baheiraei, A., Mirghafourvand, M., Mohammadi, E., Nedjat, S., Charandabi, S. M., Rajabi, F., & Majdzadeh, R. (2011). Health-promoting behaviors and social support of women of reproductive age, and strategies for advancing their health: protocol for a mixed methods study. *Biomedcentral Public Health, 11*, 191. http://www.biomedcentral.com/content/pdf/1471-2458-11-191.pdf

Bello, J. K., Adkins, K., Stulberg, D. B., & Rao, G. (2013). Perceptions of a reproductive health self-assessment tool (RH-SAT) in an urban community health center. *Patient Education & Counseling*. http://dx.doi.org/10.1016/j.pec.2013.09.004

Bennett, T. (2002, January 2). Reproductive health care in the rural United States. *JAMA: Journal of the American Medical Association*, *287(1),* 112. Retrieved from http://jama.jamanetwork.com/article.aspx?articleid=1844611

Berghella, V., Buchanan, E., Pereira, L., & Baxter, J. K. (2010). Preconception care. *Obstetrical and Gynecological Survey, 65, 119-131*. http://dx.doi.org/10.1097/OGX.0b013e3181d0c358

Boonstra, H.D. (2009). The challenge in helping young adults better manage their reproductive lives. *Guttmacher Policy Review Spring 2009, 12(2),* 13-18. Retrieved from https://www.guttmacher.org/pubs/gpr/12/2/gpr120213.pdf

California Department of Health Care Services. (2014). Office visits: Evaluation and management and education office counseling services. *Family PACT Program, Policies, Procedures and Billing Instructions.* Retrieved January 31, 2015 from http://files.medi-cal.ca.gov/pubsdoco/manual/man_query.asp?wSearch=%28%23filename+%2Af00%2A%2Edoc+OR+%23filename+%2Af00%2A%2Ezip%29&wFLogo=Family+PACT+Policies%2C+Procedures+and+Billing+Instructions%3C%2Fi%3E+Manual&wFLogoH=54&wFLogoW=281&wAlt=%3Ci%3EFamily+PACT+Policies%2C+Procedures+and+Billing+Instructions+Manual&wPath=N

California Secretary of State. (2013*). Report of registration as of December 31, 2013 registration by county.* Retrieved from http://www.sos.ca.gov/elections/report-registration/154day-primary-2014/

Campo, S., Askelson, N. M., Spies, E. L., & Losch, M. (2010). Preventing unintended pregnancies and improving contraceptive use among young adult women in a rural, midwestern state: health promotion implications. *Women & Health*, *50(3),* 279-296. http://www.tandfonline.com/doi/pdf/10.1080/03630242.2010.480909

Centers for Disease Control and Prevention. (1999, December 3). Family planning. *MMWR Morbidity and Mortality Weekly Report, 48 (47)*, 1073-1080. Retrieved from http://www.cdc.gov/mmwr/PDF/wk/mm4847.pdf

Centers for Disease Control and Prevention. (2006, April 21). Recommendations to improve preconception health and health care—United States a report of the CDC/ATSDR preconception care work group and the select panel on preconception care. *MMWR Recommendations and Reports, 55(No. RR-6)*, 1-23. Retrieved from http://www.cdc.gov/mmwr/PDF/rr/rr5506.pdf

Centers for Disease Control and Prevention. (2007, December 14). Preconception and interconception health status of women who recently gave birth to a live-born infant — Pregnancy risk assessment monitoring system (PRAMS), United States, 26 reporting areas, 2004. *Morbidity and Mortality Weekly Report Surveillance Summaries*, *56(SS-10)*. Retrieved from http://www.cdc.gov/mmwr/PDF/ss/ss5610.pdf

Centers for Disease Control and Prevention. (2012). *Preconception health and health care environmental scan Report on clinical screening tools and interventions*. Retrieved from Preconception Care and Health Care website: http://www.cdc.gov/preconception/documents/environmental-scan-report.pdf

Centers for Disease Control and Prevention. (2013, February 12). *Unintended pregnancy prevention.* Retrieved January 31, 2015 from http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/index.htm

Centers for Disease Control and Prevention. (2014, April 25). Providing quality family planning services recommendations of CDC and the U.S. Office of Population Affairs. *MMWR Recommendations and Reports, 63(4)*, 1-60. Retrieved from http://www.cdc.gov/mmwr/pdf/rr/rr6304.pdf

Chamberlain, J. (2013). *A working definition of empowerment*. Retrieved January 30, 2015 from National Empowerment Center website: http://www.power2u.org/articles/empower/working_def.html

Chappell, B. (2015, January 22). House approves bill that would bar Federal funding for abortions. *NPR News*. Retrieved January 24, 2015 from the NPR News website: http://www.npr.org/blogs/thetwo-way/2015/01/22/379120104/house-approves-bill-that-would-bar-federal-funding-for-abortions

Coffey, K. & Shorten, A. (2013). The challenge of preconception counseling: Using reproductive life planning in primary care. *Journal of the American Association of Nurse Practitioners.* doi: 10.1002/2327-6924.12054

Contraceptive effectiveness. (2009). *Mosby's Medical Dictionary, 8th edition*. Retrieved November 19 2014 from http://medical-dictionary.thefreedictionary.com/contraceptive+effectiveness

Coward, R. T., Davis, L. A., Gold, C. H., Smiciklas-Wright, H., Thorndyke, L. E., & Vondracek, F. W. (2006). *Rural Women's Health Mental, Behavioral, and Physical Issues*. New York, NY: Springer Publishing Inc.

Crosby, R. A., Vanderpool, R. C., & Wendel, M. L. (2012). *Rural Populations and Health: Determinants, Disparities, and Health* [ProQuest ebrary]. Retrieved from http://site.ebrary.com/lib/ucdavis/docDetail.action?docID=10587585

Curtis, M. G. (2008). Preconception care: a clinical case of "think globally, act locally". *American Journal of Obstetrics & Gynecology, 199(6 Suppl 2)*, S257-258. doi: 10.1016/j.ajog.2008.07.068

Dillon, M., & Henly, M. (2008). Religion, politics, and the environment in rural America. *The Carsey Institute at the Scholars' Repository* (Paper 47). Retrieved from the University of New Hampshire Scholars Repository website: http://scholars.unh.edu/cgi/viewcontent.cgi?article=1046&context=carsey

Dillon, M., & Savage, S. (2006). Valued and religion in rural America: attitudes toward abortion and same-sex relations. *The Carsey Institute at the Scholars' Repository* (Paper 12). Retrieved from the University of New Hampshire Scholars Repository website: http://scholars.unh.edu/cgi/viewcontent.cgi?article=1011&context=carsey

Dunlop, A. L., Logue, K. M., Miranda, M. C., & Narayan, D. A. (2010). Integrating reproductive planning with primary health care: An exploration among low-income, minority women and men. *Sexual & Reproductive Healthcare, 1(2)*, 37-43. http://dx.doi.org/10.1016/j.srhc.2010.01.001

Engaging in culturally competent family planning counseling. (2009). *Medscape Nurses*. Retrieved from http://www.medscape.com/viewarticle/717039

Epigee Women's Health. (2014a). *Catholicism and family planning*. Retrieved January 30, 2015 from http://www.epigee.org/guide/catholicism.html

Epigee Women's Health. (2014b). *Family planning in the Jewish religion*. Retrieved January 30, 2015 from http://www.epigee.org/guide/judaism.html

Fertility Rates Michigan and United States Residents Selected Years, 1900 – 2012. (2012). Retrieved January 31, 2015 from the Michigan Department of Community Health website: http://www.mdch.state.mi.us/pha/osr/natality/tab1.3.asp

Files, J. A., Frey, K. A., David, P. S., Hunt, K. S., Noble, B. N., & Mayer, A. P. (2011). Developing a Reproductive Life Plan. *The Journal of Midwifery & Women's Health, 56(5),* 468-474. doi: 10.1111/j.1542-2011.2011.00048.x

Frey, K. A., Navarro, S. M., Kotelchuck, M., & Lu, M. C. (2008). The clinical content of preconception care: preconception care for men. *American Journal of Obstetrics and Gynecology, 199(6 Suppl 2)*, S389-395. doi: 10.1016/j.ajog.2008.10.024

Fuqin, L., Parmerter, J., & Straughn, M. (2015). Reproductive life planning: A concept analysis. *Nursing Forum*. Advance online publication. doi:10.1111/nuf.12122

Gamm, L. D,. Hutchinson, L.L., Dabney, B. J., & Dorsey, A. M., eds. (2003). *Rural Healthy People 2010: A companion document to Healthy People 2010. Volume 2*. College Station: Texas: The Texas A & M University System Health Science Center, School of Rural Public Health, Southwest Rural Health Research Center. Retrieved from http://sph.tamhsc.edu/centers/rhp2010/Volume2.pdf

Gimpel, J.G., & Karnes, K.A. (2006, July). The rural side of the urban-rural gap. *PS: Political Science and Politics, 39(3),* 467-472. Retrieved from http://www.jstor.org/stable/20451785

Gold, R. B. (2001). Title X: Three decades of accomplishment. *The Guttmacher Report on Public Policy, 4(1),*5-8. Retrieved from http://www.guttmacher.org/pubs/tgr/04/1/gr040105.pdf

Gold, R.B. (2011). Wise investment: Reducing the steep cost to Medicaid of unintended pregnancy in the United States. *The Guttmacher Policy Review, 14(3)*, 6-10. Retrieved from http://www.guttmacher.org/pubs/gpr/14/3/gpr140306.pdf

Greene, J., & Hibbard, J. H. (2012). Why does patient activation matter? An examination of the relationships between patient activation and health-related outcomes. *Journal of General Internal Medicine, 27(5),* 520-526. doi: 10.1007/s11606-011-1931-2

Guttmacher Institute. (2013, December). *Unintended pregnancy in the United States* (Fact sheet). Retrieved September 28, 2014 from http://www.guttmacher.org/pubs/FB-Unintended-Pregnancy-US.html

Guyer, B., Freedman, M. A., Strobino, D. M., & Sondik, E. J. (2000). Annual summary of vital statistics: trends in the health of Americans during the 20th century. *Pediatrics, 106(6)*, 1307-1317. doi: 10.1542/peds.106.6.1307

Hart L.G., Larson, E.H, & Lishner, D.M. (2005). Rural definitions for health policy and research. *American Journal of Public Health, 95(7).* Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1449333/pdf/0951149.pdf

Hasstedt, K. (2013). Title X: An essential investment, now more than ever. *The Guttmacher Policy Review, (16)3,* 14-19. Retrieved from http://www.guttmacher.org/pubs/gpr/16/3/gpr160314.pdf

Hawks, S.R., Madanat, H.N., Merrill, R.M., Goudy, M.B., & Miyagawas, T. (2002). A cross-cultural comparison of health promoting behaviors among college students. *The International Electronic Journal of Health Education, 2002(5)*, 84-92. Retrieved from http://js.sagamorepub.com/gjhep/article/view/4014

Institute of Medicine. (1995). *The best intentions: unintended pregnancy and the well-being of children and families*. Washington, DC: The National Academies Press.

Institute of Medicine. (2005). *Quality through collaboration: the future of rural health care.* Washington, DC: The National Academies Press.

Jones, R.K., & Dreweke, J. (2011). *Countering conventional wisdom: New evidence on religion and contraceptive use*. New York: Guttmacher Institute. Retrieved from http://www.guttmacher.org/pubs/Religion-and-Contraceptive-Use.pdf

Kitsantas, P., Gaffney, Kathleen F., & Cheema, Jehanzeb. (2012). Life stressors and barriers to timely prenatal care for women with high-risk pregnancies residing in rural and urban areas. *Women's Health Issues, 22(5)*, e455-e460. http://dx.doi.org/10.1016/j.whi.2012.06.003

Klugman, C. M., & Dalinis, P. M. (2008). *Ethical Issues in Rural Health Care.* Baltimore, MD: The John Hopkins University Press.

Kouame, G. (2010). Reflections on rural communities. *Journal of Hospital Librarianship, 10(2),* 165-169. http://dx.doi.org/10.1080/15323261003681596

Lauder, W., Reel, S., Farmer, J., & Griggs, H. (2006). Social capital, rural nursing and rural nursing theory. *Nursing Inquiry, 13(1)*, 73-79. doi: 10.1111/j.1440-1800.2006.00297.x

Leipert, B. D., Leach, B., & Thurston, W. E. (2012). *Rural Women's Health*. Canada: University of Toronto Press.

Levi, A. J., Simmonds, K. E., & Taylor, D. (2009). The role of nursing in the management of unintended pregnancy. *Nursing Clinics of North America, 44(3)*, 301-314. doi:10.1016/j.cnur.2009.06.007

Lord, J., & Hutchinson, P. (1993). The process of empowerment: implications for theory and practice. *Canadian Journal of Community Mental Health 12(1), 5-22.* Retrieved from http://www.johnlord.net/web_documents/process_of_empowerment.pdf

Lu, M.C. (2007). Recommendations for preconception care. *American Family Physician, 76(3),* 397-400. Retrieved from http://www.aafp.org/afp/2007/0801/p397.html

Malnory, M. E., & Johnson, T. S. (2011). The reproductive life plan as a strategy to decrease poor birth outcomes. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 40(1)*, 109-121. doi: 10.1111/j.1552-6909.2010.01203.x

Martin, J., Hamilton, B., Osterman, M., Curtin, S., & Mathews, T. (2013). Births: Final data for 2012. *National Vital Statistics Reports, 62 (9)*, 1-68. Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_09.pdf

Martin, S., Damm, K., Hellerstedt, W, & Gilliam, M. (2014). *Rural/urban differences in family planning service provision: A survey of Title X clinics in great plains and midwestern United States.* Poster session at Population Association of America 2014 Annual Meeting, Boston, MA. Retrieved from http://paa2014.princeton.edu/papers/143033

Massachutsetts Institute of Technology. (2011). *Young adult development project*. Retrieved from the Massachutsetts Institute of Technology website: http://hrweb.mit.edu/worklife/youngadult/youngadult.pdf

McCall-Hosenfeld, J. S., & Weisman, C. S. (2011). Receipt of preventive counseling among reproductive-aged women in rural and urban communities. *Rural and Remote Health, 11(1)*, 1617. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3638769/pdf/nihms456079.pdf

Moos, M. K. (1989). Preconceptional health promotion: a health education opportunity for all women. *Women's Health, 15 (3)*, 55-68. doi: 10.1300/J013v15n03_05

Moos, M. K., Bangdiwala, S.I., Meibohm, A.R., & Cefalo, R.C. (1996). The impact of a preconceptional health promotion program on intendedness of pregnancy. *American*

Journal of Perinatology, 13(2), 103-108. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/8672181

Moos, M.K. (2006). Preconception care. *Association of Women's Health, Obstetric & Neonatal Nurses Lifelines 10 (4)*, 332-334. http://dx.doi.org/10.1111/j.1552-6356.2006.00063.x

Moos, M.K., Dunlop, A. L., Jack, B.W., Nelson, L., Coonrod, D. V., Long, R., Boggess, K., & Gardiner, P. M. (2008). Healthier women, healthier reproductive outcomes: recommendations for the routine care of all women of reproductive age. *American Journal of Obstetrics and Gynecology, 199 (6 Supp B), S280-289.* http://dx.doi.org/10.1016/j.ajog.2008.08.060

Mosher, W. D., Jo, J., & Abma, Joyce C. (2012, July 24). Intended and unintended births in the United States: 1982–2010. *National Health Statistics Report (55),* 1-28. Retrieved from http://www.cdc.gov/nchs/data/nhsr/nhsr055.pdf

National Partnership for Women & Families. (2012, July). *Why the ACA matters for women: Summary of key provisions* (Fact Sheet). Retrieved from the National Partnership for Women & Families website: http://go.nationalpartnership.org/site/DocServer/SUMMARY.pdf?docID=10001

National Rural Health Association. (2013). *Rural women's health*. Retrieved from National Rural Health Association Official Policy Positions website: http://www.ruralhealthweb.org/go/left/policy-and-advocacy/policy-documents-and-statements/official-nrha-policy-positions

Our Bodies Ourselves. (March 28, 2014). *History of abortion in the U.S.* Retrieved January 24, 2014 from Our Bodies Ourselves website: http://www.ourbodiesourselves.org/health-info/u-s-abortion-history/

Parsons, R.J. (1988). *Empowerment for Role Alternatives for Low Income Minority Girls: A Group Work Approach*. Social Work with Groups 11(4). Binghamton, NY: The Hawforth Press, Inc.

Pender, N. J. (1996). *Health Promotion in Nursing Practice* (3rd edition). Stamford, CT: Appleton & Lange.

Pender, N. (2011a). *The Health Promotion Model Manual*. Retrieved from http://deepblue.lib.umich.edu/bitstream/handle/2027.42/85350/HEALTH_PROMOTION_MANUAL_Rev_5-2011.pdf?sequence=1

Pender, N.J., Murdaugh, C. L., & Parsons, M.A. (2011b). *Health Promotion in Nursing Practice* (6th Edition). Boston, MA: Pearson.

Pew Research Center. (2013a). *A history of key abortion rulings of the U.S. Supreme Court.* Retrieved January 24, 2015 from the Pew Research Center website: http://www.pewforum.org/2013/01/16/a-history-of-key-abortion-rulings-of-the-us-supreme-court/

Pew Research Center. (2014b). *Political polarization in the American public Section 3: Political polarization and personal life*. Retrieved January 31, 2015 from the Pew Research Center website: http://www.people-press.org/2014/06/12/section-3-political-polarization-and-personal-life/

Reagan, Leslie J. (1997). *When abortion was a crime: Women, medicine, and law in the United States, 1867-1973.* Berkeley: University of California Press, c1997 1997. http://ark.cdlib.org/ark:/13030/ft967nb5z5/

Robert Wood Johnson Foundation. (2013). *Return on investments in public health: Saving lives and money* [Policy Highlight Brief]. Retrieved from http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2013/rwjf72446

Ross, S. (1979). *The youth values project*. Washington, D.C.: The Population Institute.

Ruhl, C., & Moran, B. (2008). The clinical content of preconception care: preconception care for special populations. *American Journal of Obstetrics & Gynecology, 199(6 Suppl 2)*, S384-388. doi: 10.1016/j.ajog.2008.09.019

Rural Policy Research Institute. (March, 2007). *Choosing rural definitions: implications for health policy* (Issue Brief #2). Retrieved from the Rural Policy Research Institute website: http://www.rupri.org/Forms/RuralDefinitionsBrief.pdf

Sadan, E. (2004). *Empowerment and community planning Translated from Hebrew by Richard Flanz*. [Adobe Digital Editions version]. Retrieved from http://www.mpow.org/

Sanders, L. B. (2009). Reproductive life plans: initiating the dialogue with women. *MCN. American Journal of Maternal Child Nursing, 34(6)*, 342-347; quiz 348-349. doi: 10.1097/01.NMC.0000363681.97443.c4

Santelli, J., Rochat, R., Hatfield-Timajchy, K., Gilbert, B. C., Curtis, K., Cabral, R. . . . & Schieve, L. (2003). The measurement and meaning of unintended pregnancy. *Perspectives on Sexual and Reproductive Health, 35(2)*, 94-101. doi: 10.1363/3509403

Saracino, M. & Burr, B. (2012). *Milestones of Human Development*. Presentation at the Professional Development Conference of the Family and Consumer Sciences Teachers Association of Texas State, Dallas, TX. Retrieved January 31, 2015 from the Statewide Instructional Resources Development Center website: http://cte.sfasu.edu/wp-content/uploads/2013/02/Milestones-of-Human-Development.pdf

Schenker, J. G., & Rabenou, V. (1993). Family planning: cultural and religious perspectives. *Human Reproduction, 8(6),* 969-976. Retrieved from http://humrep.oxfordjournals.org/content/8/6/969.full.pdf+html

Schuiling, K. D., & Low, L. K. (2006). Women's growth and development across the life span. In K. D. Schuiling, & F. E. Likis (Eds). *Women's Gynecologic Health* (p 21-38). Sudbury, MA: Jones & Bartlett. Retrieved from http://samples.jbpub.com/9780763756376/Chapter2.pdf

Sonfield, A. & Pollack, H. A. (2013). The policy and politics of reproductive health The Affordable Care Act and reproductive health: Potential gains and serious challenges. *Journal of Health Politics, Policy and Law*, 38 (2), 373-391. doi: 10.1215/03616878-1966342

Srikanthan, A. & Reid, R.L. (2008). Religious and cultural influences on contraception. *Journal of Obstetrics and Gynaecology Canada*, *30(2),* 129-137. Retrieved from http://www.jogc.com/abstracts/full/200802_womenshealth_1.pdf

Stern, J., Larsson, M., Kristiansson, P., & Tyden, T. (2013). Introducing reproductive life plan based information in contraceptive counselling: an RCT. *Human Reproduction, 28(9)*, 2450-2461. doi: 10.1093/humrep/det279

Swick, A., & Enders, J. (2013, February). *Preconception health in Ontario: Perspectives from practice, current evidence and an opportunity for networking*. Presentation presented at the Best Start Conference, Markham, ON. Retrieved from http://www.beststart.org/events/2013/bsannualconf13/webcov/presentations/C3_Preconception_OPHA.pdf

Swift, A. (2013, December 16). *Honesty and ethics rating of clergy slides to new low.* Retrieved January 31, 2015 from the Gallup, Inc. website: http://www.gallup.com/poll/166298/honesty-ethics-rating-clergy-slides-new-low.aspx

The National Campaign to Prevent Teen and Unplanned Pregnancy. (2013, November). *Briefly...getting the facts straight on the benefits of birth control in America: Summary.* Retrieved from http://thenationalcampaign.org/sites/default/files/resource-primary-download/briefly-facts-straight.pdf

The World Bank Group. (2011). *PovertyNet: Empowerment.* Retrieved January 31, 2015 from the World Bank Group website: http://go.worldbank.org/S9B3DNEZ00

Thompson, K., Archer, L. (2012). *Formative evaluation of a reproductive life plan tool: Colorado Department of Public Health and Environment*. Retrieved from https://www.colorado.gov/pacific/sites/default/files/PF_Formative-Evaluation-of-a-Reproductive-Life-Plan-Tool%20%281%29_0.pdf

Thompson, K.M. (2014). *Birth control A brief history of birth control*. Retrieved January 31, 2015 from the Our Bodies, Ourselves website: http://www.ourbodiesourselves.org/book/companion.asp?id=18&compID=53

United Nations Development Fund for Women. (1995). *Guidelines on women's empowerment*. Retrieved January 31, 2015 from the United Nations Population Information Network (POPIN) website: http://www.un.org/popin/unfpa/taskforce/guide/iatfwemp.gdl.html

United States Census Bureau. (2014, December 4). *State and County QuickFacts, California*. Retrieved January 31, 2015 from the United States Census Bureau website: http://quickfacts.census.gov/qfd/maps/california_map.html

United States Department of Health, Education, and Welfare. (1979). *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* (Publication No. 79-55071). Washington DC: United States Government Printing Office. Retrieved from http://profiles.nlm.nih.gov/ps/access/NNBBGK.pdf

United States Department of Agriculture. (2013). *Parents projected to spend $241,080 to raise a child Born in 2012, according to USDA Report* (Press Release No. 0160.13). Retrieved from http://www.usda.gov/wps/portal/usda/usdamediafb?contentid=2013/08/0160.xml&printable=true&contentidonly=true

United States Department of Agriculture Economic Research Service. (2012, May 26). *Recent Industrial Trends.* Retrieved January 31, 2015 from http://www.ers.usda.gov/topics/rural-economy-population/business-industry/recent-industrial-trends.aspx

United States Department of Agriculture Economic Research Service. (2013, May 10). *2013 Rural-Urban Continuum Codes* (Data set). Retrieved January 31, 2015 from http://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx

United States Department of Agriculture Economic Research Service. (2014, January 31). *Business and Industry.* Retrieved January 31, 2015 from http://www.ers.usda.gov/topics/rural-economy-population/business-industry.aspx

United States Department of Health and Human Services. (2013, August 28). *Family Planning*. Retrieved January 31, 2015 from the Healthy People 2020 website: https://www.healthypeople.gov/2020/topics-objectives/topic/family-planning/objectives

Wehmeyer, M.L., Palmer, S. B, Agran, M., Mithaug, D. E. & Martin, J.E. (2000). Promoting causal agency—the self determined learning model of instruction. *Exceptional Children*,

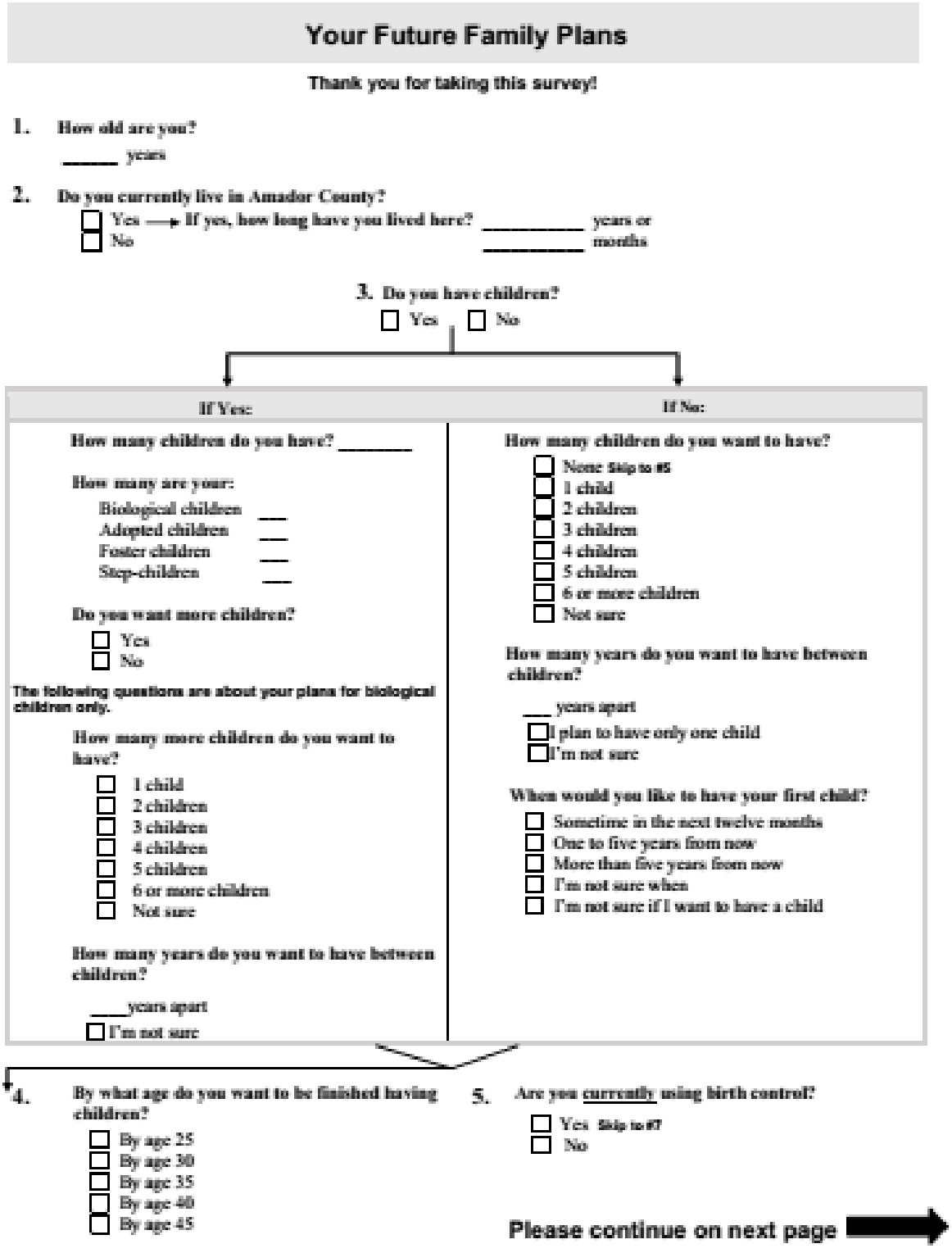
(66)4, 439-453. Retrieved from http://www.beachcenter.org/research/FullArticles/PDF/SD9A_Promoting%20Casual%20Agency.pdf

Winters, C. (ed.). (2013). *Rural Nursing Concepts, Theory, and Practice* (4th ed.). New York, NY: Springer Publishing Company, LLC.

Women, empowerment and health. (1994). Presented at the International Conference on Population and Development, Cairo, Egypt. Retrieved January 31, 2015 from United Nations Population Information Network (POPIN) website: http://www.un.org/popin/icpd/infokit/infokit.eng/5women.html

Zurawin, R. K. (2012). Tubal sterilization. *Medscape References*. Retrieved December 24, 2014 from Medscape website: http://emedicine.medscape.com/article/266799-overview#a0101

Appendix A: Your Future Family Plans Survey



Your Future Family Plans

Thank you for taking this survey!

1. **How old are you?**

   _____ years

2. **Do you currently live in Amador County?**

   ☐ Yes → If yes, how long have you lived here? _____ years or _____ months
   ☐ No

3. **Do you have children?**

   ☐ Yes ☐ No

If Yes:

How many children do you have? _____

How many are your:

- Biological children ___
- Adopted children ___
- Foster children ___
- Step-children ___

Do you want more children?

☐ Yes
☐ No

The following questions are about your plans for biological children only.

How many more children do you want to have?

☐ 1 child
☐ 2 children
☐ 3 children
☐ 4 children
☐ 5 children
☐ 6 or more children
☐ Not sure

How many years do you want to have between children?

____years apart
☐ I'm not sure

If No:

How many children do you want to have?

☐ None Skip to #5
☐ 1 child
☐ 2 children
☐ 3 children
☐ 4 children
☐ 5 children
☐ 6 or more children
☐ Not sure

How many years do you want to have between children?

___ years apart
☐ I plan to have only one child
☐ I'm not sure

When would you like to have your first child?

☐ Sometime in the next twelve months
☐ One to five years from now
☐ More than five years from now
☐ I'm not sure when
☐ I'm not sure if I want to have a child

4. **By what age do you want to be finished having children?**

   ☐ By age 25
   ☐ By age 30
   ☐ By age 35
   ☐ By age 40
   ☐ By age 45

5. **Are you currently using birth control?**

   ☐ Yes Skip to #7
   ☐ No

Please continue on next page →

6. Have you ever used birth control?

- ☐ Yes
- ☐ No Skip to #10

7. For the method you are using or have used in the past…	Using currently	Not now, but in the past	Never used	Don't know	Does Not Apply	Decline to answer
Birth control pills						
Emergency Contraception Pills (Plan B, "morning after pill")						
Condoms						
Abstinence (not having sex)						
Withdrawal (pulling out)						
Shot (Depo Provera)						
Rhythm or natural family planning						
Patch (Ortho Evra)						
Intrauterine device or IUD (Mirena, Paragard, Skyla)						
Implant (Nexplanon/Implanon)						
Vaginal ring (NuvaRing)						
Spermicide (foam/film/sponge)						
Diaphragm or cervical cap						
Sterilization (tubal ligation or partner had vasectomy)						
Other (please list)						

8. In the past, have you ever stopped using a method of birth control?

- ☐ Yes Continue to #9
- ☐ No Skip to #11

Please continue on the next page ➡

9. I stopped using a birth control because….

I had side effects from using the birth control (for example, weight gain, bleeding, nausea).	Yes	No
I got pregnant while using it	Yes	No
I missed an appointment to get more	Yes	No
I forgot to take it	Yes	No
I didn't like using it	Yes	No
I couldn't afford to pay for it	Yes	No
I couldn't get an appointment to get it	Yes	No
I wanted to get pregnant	Yes	No
My partner didn't want me to use it	Yes	No
I forgot to take it	Yes	No
Was there another reason?	Yes	No

Please describe:_____ Skip to #11

10. I have never used birth control because…..

I couldn't afford to pay for it.	Yes	No
My partner didn't want me to use it.	Yes	No
I don't think I need it.	Yes	No
I didn't know where to get it	Yes	No
I don't know how to use it	Yes	No
I was afraid someone would find out	Yes	No
My partner didn't want me to use it	Yes	No
Was there another reason?	Yes	No

Please describe:_____

11. If you were to find out you were pregnant today, would you be ready?

- ☐ I am ready to be pregnant.
- ☐ I am not ready to be pregnant.
- ☐ I am not sure if I am ready to be pregnant right now.

12. If you were to find out you were pregnant today, how would you feel?

- ☐ Very happy
- ☐ Fairly happy
- ☐ Neither happy nor unhappy
- ☐ Fairly unhappy
- ☐ Very unhappy

Please continue on the next page ➡

13. **How important is it to you to NOT get pregnant right now?**

- ☐ Very important
- ☐ Somewhat important
- ☐ Not at all important
- ☐ Don't know

Next are some background questions about you

14. **Which of these best describes your level of education?**

- ☐ Less than high school
- ☐ High school
- ☐ Some college
- ☐ Bachelor's degree or higher

15. **Which of the following best describes your current marital status?**

- ☐ Married or domestic partner
- ☐ Single (never married)
- ☐ Divorced
- ☐ Widowed
- ☐ Separated

16. **Which of the following best describes you?**

- ☐ White
- ☐ Hispanic or Latino
- ☐ Black or African American
- ☐ Native American or American Indian
- ☐ Asian / Pacific Islander
- ☐ Something else (Please explain)_____

17. **How important is religion in your daily life?**

- ☐ Very important
- ☐ Fairly important
- ☐ Slightly important
- ☐ Not at all important

18. **Are you currently covered by any form of health insurance or health plan?**

- ☐ Covered by health insurance or heath plan
- ☐ Not covered by health insurance or health plan
- ☐ Don't know
- ☐ Decline to answer

19. **Do you currently have a regular healthcare provider?**

- ☐ Yes
- ☐ No

Please continue on the next page ➡

Finally, please answer some questions about the survey.

20. **How easy was this survey to complete?**

- ☐ Very easy
- ☐ Somewhat easy
- ☐ Somewhat hard
- ☐ Very hard

21. **How understandable were the questions in this survey?**

- ☐ Very understandable
- ☐ Somewhat understandable
- ☐ Somewhat confusing
- ☐ Very confusing

22. **How interesting were the questions in this survey?**

- ☐ Very interesting
- ☐ Somewhat interesting
- ☐ Somewhat boring
- ☐ Very boring

23. **How helpful did you feel the survey questions were when thinking about your future family plans?**

- ☐ Very helpful
- ☐ Somewhat helpful
- ☐ Somewhat unhelpful
- ☐ Very unhelpful

Are there any additional comments or suggestions you have to improve this survey?

_____
_____
_____
_____

Thank you for your time and assistance!

Appendix B—Recruitment Flyer

Volunteers Needed To Complete a Short Survey

Purpose of Study:

To learn more about women living in rural communities and their future family plans

Eligibility:

- **Women between 18 and 35 years old**
- **Live in Amador or Calaveras County**
- **Not currently pregnant**

What Will I Be Asked to Do?

- **Complete a 25-item survey (10-15 minutes)**
- **All information will be anonymous**

For more information, contact:

Lori Jagoda, RN, BSN, PHN
lori.jagoda@ucdmc.ucdavis.edu; 209-988-4244

Jeri Bigbee, Ph.D., RN., F.N.P.-B.C., F.A.A.N
jeri.bigbee@ucdmc.ucdavis.edu; 916-734-8831

Appendix C: Consent Information Sheet

Your Future Family Plans

You are invited to participate in a research study related to your future family plans. *Before you agree, please review the following information*:

- The purpose of this study is to learn more about women living in rural communities and their future family plans.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part now and later change your mind.
- Whatever you decide it, will not be held against you.
- You can ask all the questions you want before you decide.
- You will be asked to complete a 25-question anonymous survey, which asks questions about your plans for children in the future, your birth control use, and some background questions. The survey will take no more than fifteen minutes to complete.
- You may skip or not answer any question that makes you feel uncomfortable.
- No identifying personal information will be collected.

This research has been reviewed and approved by an Institutional Review Board ("IRB"). Information to help you understand research is on-line at http://www.research.ucdavis.edu/IRBAdmin.You may talk to a IRB staff member at (916) 703-9151, IRBAdmin@ucdmc.ucdavis.edu, or 2921 Stockton Blvd, Suite 1400, Room 1429, Sacramento, CA 95817 for any of the following:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research subject.
- You want to get information or provide input about this research.

Your completion of the survey is your consent to participate.

Lori Jagoda, RN, BSN, PHN, Graduate student
Nursing Science and Health-care Leadership Program
Betty Irene Moore School of Nursing, UC Davis
Phone: (209) 988-4244
lori.jagoda@ucdmc.ucdavis.edu

Jeri L. Bigbee, PhD, RN, FNP-BC, FAAN, Adjunct Professor
Betty Irene Moore School of Nursing
UC Davis Health System
Phone: (916) 734-2145
jeri.bigbee@ucdmc.ucdavis.edu

Appendix D: Show Your Love! Steps to a Healthier Me! Pamphlet

Show Your LOVE!

Steps to a Healthier me!

Life offers many opportunities. Take time to think about your goals for school, for your job or career and for your health. Your physical and mental health are important in helping you achieve the goals you set for yourself. This is a tool to help you set your goals and make a plan.

Start by choosing your goals for this year. It is easier to focus on 2 – 3 goals. Then, use the checklist below to set your plan into motion.

Date plan made or revised: _____

My top health 3 goals for this year are

1.

2.

3.

- ❑ Ask my parents, grandparents, brothers, sisters, aunts, uncles, and cousins about any health problems in the family.
  _____
  _____
  _____
- ❑ Keep a record of my findings.
  https://family/history.hhs.gov/fhh-web/family-history/start.action
- ❑ Update yearly.

15. Get regular checkups. See my provider for regular appointments and if I have questions.

- ❑ My providers' names and phone numbers are
  _____
  _____
  _____
- ❑ My next appointments are
  _____
  _____
  _____

Questions to ask my provider.

_____
_____
_____

Taking time to look at your life goals and getting as healthy as you can be will allow you to take full advantage of the opportunities that lie ahead. Talk with your partner and your provider about how to best put this plan into action. Remember that life happens, and plans can change. So, put this in a place so that you can look at it regularly and update it—and take it with you to your next appointment with your provider. And, if you decide you want to have a baby sometime in the near future, be sure to plan your pregnancy and get your body ready before you get pregnant! To be ready for any path you choose, start making healthy choices today. Show your love to the most important person in the world—YOU!

Show Your Love Preconception Health

CS229163-A

CDC

Centers for Disease Control and Prevention
National Center on Birth Defects and Developmental Disabilities

10. Will not use street drugs or take other people's prescription medicines.

Taking drugs not prescribed for me is not good for me. I want to be healthy!

- ❑ Make an appointment with my provider to talk about help for this.
- ❑ Find a support person or group for additional help.

11. Reduce my alcohol intake.

- ❑ Reduce my drinking to less than 7 drinks a week and never more than 1 on any occasion http://www.cnpp.usda.gov/Publications/DietaryGuidelines/2010/PolicyDoc/ExecSumm.pdf
- ❑ Make an appointment with my provider to talk about help for this.
- ❑ Stop drinking immediately if I find myself pregnant. Drinking during pregnancy can cause birth defects. There is no known safe level of alcohol in pregnancy.
- ❑ Find a support person or group for additional help.

12. Stop partner violence.

Abuse can be emotional, physical, or sexual. No one deserves to be abused. I love myself and my child or children enough to take steps to deal with violence if it should happen to me or my family.

- ❑ Talk with my provider.
- ❑ Talk with a counselor.
- ❑ Make a plan.

  Call the National Domestic Violence Hotline at 1-800-799-SAFE (7233) or 1-800-787-3224 (TDD).

13. Manage my health conditions, such as asthma, diabetes, overweight.

- ❑ Learn more about my health condition(s).
- ❑ Talk with my provider about a plan to manage my health condition(s) and my medicines.
- ❑ Find a support person or group to help me with the plan.

14. Learn about my family's health history.

Learning about health problems in my family can help my provider and me determine which problems to look for and how to prevent or deal with them.

Goals for a Healthier me!






Changes in insurance plans might mean that you are eligible for some preventive health services, such as screening, vaccinations, contraception (birth control), and counseling, with no co-payment or deductible. To learn more, talk with your health insurance company agent.

1. Prevent unplanned pregnancies.

My decision may change later, but for now, I have decided that I do not want to get pregnant. If I am having sex and do not want to get pregnant, I will

- ❑ Talk with my partner to share my pregnancy desires and gain support for my plan.
- ❑ Select a method of birth control that is effective and fits my needs.

  If I choose an IUD or implant, I don't need to do anything except get my method replaced on time (3-10 years) and talk to my provider if I have any questions or problems with my method.

  If I choose other methods, I will use my method correctly and consistently at all times, and make sure that I get more supplies before I run out. I will also talk to my provider if I have any questions or problems with my method.

2. Eat healthy foods.

Planning meals and snacks ahead of time and having the food on hand make it less likely that I will make unhealthy choices.

- ❑ Make a list before I go to the grocery store, farm stand or market, or neighborhood garden.
- ❑ Shop the outside edge of the store where the healthiest food is sold.
- ❑ Include plenty of vegetables and fruits. (*Eat my colors!*)

3. Be active.

Setting aside a time for regular physical activity and being physically active with a friend will help me keep my plan. Fitting in several short 10 minute physical activity sessions throughout the day can help me reach my activity goal.

- ❑ Try to get 150 minutes of moderate intensity physical activity each week.
- ❑ Find an exercise friend.
- ❑ Find ways to be active at home and at work.

4. Take 400 micrograms (mcg) of folic acid daily.

Folic acid is good for my health. Taking it daily will help prevent birth defects of the brain and spine if I should decide to or accidently get pregnant.

- ❑ Take a vitamin every day unless I eat a serving of breakfast cereal that says it has 400 mcg of folic acid on the nutrition label.
- ❑ Place vitamins by my toothbrush or on the kitchen counter or _____to help me remember to take them daily.

5. Protect myself from sexually transmitted infections (STIs).

Abstinence (not having sex) is the best protection from STIs.

- ❑ Agree to have sex with only one person who has agreed to have sex with only me.
- ❑ Buy a supply of condoms, and use them correctly and every time.
- ❑ Get checked if I have been exposed to STIs. http://www.cdc.gov/std/healthcomm/the-facts.htm
- ❑ If needed, take all the medicine for the full time as directed by my provider.

6. Avoid harmful chemicals, metals, and other toxic substances around the home and in the workplace.

http://www.prhe.ucsf.edu/prhe/pdfs/ToxicMatters.pdf

http://www.marchofdimes.com/pregnancy/stayingsafe_indepth.html

7. Make sure my vaccinations (shots) are up-to-date.

Vaccinations are our best defense against many diseases. Sometimes, those diseases can cause serious problems. I want to protect myself against those diseases.

- ❑ Remember to get a flu shot every year!
- ❑ Check the vaccination schedule before I see my provider.

  http://www.cdc.gov/vaccines/schedules/easy-to-read/adult.html
- ❑ Remind my provider to update my vaccinations.

8. Manage and reduce stress, and get mentally healthy.

- ❑ Learn more about getting mentally healthy.

  http://www.womenshealth.gov/mental-health/

  http://womenshealth.gov/publications/our-publications/fact-sheet/stress-your-health.cfm.

  http://www.webmd.com/balance/stress-management/default.htm

  Call National Institute of Mental Health (866-615-6464) for more information.
- ❑ Be aware of things that cause me stress.
- ❑ Make a plan to reduce my stress.
- ❑ Find a support person or group, if needed.

9. Stop smoking.

Smoking is not healthy for me or others around me. I want to be healthy! Second hand smoke is not healthy either. I will avoid being around people when they smoke.

- ❑ Make an appointment with my provider to talk about help for this.

  My appointment is _____.
- ❑ Check out http://betobaccofree.hhs.gov/quit-now/index.html and http://smokefree.gov/
- ❑ Call the quit line: 1-800-QUIT-NOW (1-800-7848-669)
- ❑ Find a support person or group for additional help.