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Maternal Knowledge Of Danger Signs Of Pregnancy

Rachel D. Kirksey

EMERGENCY CONTRACEPTION: A NATIONAL SURVEY OF NURSE PRACTITIONERS' ATTITUDES AND MANAGEMENT PRACTICES

by

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of Nurse Practitioners' Attitudes
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Abstract

Emergency contraception, a method of contraception, was deemed safe and effective by the U.S. Food and Drug Administration in 1996. Women seek contraception from health care providers, but few women know of the availability of emergency contraception. To increase the use of emergency contraception, health care providers need to counsel women regarding this method and prescribe it. The focus of this descriptive study was nurse practitioners' attitudes and management practices regarding emergency contraception. King's Goal Attainment Theory served as the theoretical framework for the study. The following research questions were answered: What are the attitudes of nurse practitioners regarding emergency contraception? And what are the management practices of nurse practitioners regarding emergency contraception? The target population included nurse practitioners in the United States who answered questions via the World Wide Web. The sample of 57 completed the adapted version of the Adolescent Post-Coital Contraceptive Use: Views of Adolescent Health Care Providers survey and the

Demographic Data Form. Descriptive statistics including frequencies and percentages were used to perform an item-by-item analysis on the data. The findings of the study indicated that the majority of nurse practitioners practicing in the United States counsel women regarding the availability of emergency contraception and prescribe emergency contraception, but only a few times per year. Recommendations for further research included conduction of studies to evaluate knowledge levels of nurse practitioners regarding emergency contraception and their intervention practices.

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This research and the past year's success would not have been possible without the love, support, encouragement, and guidance of a few special people in my life. Words cannot convey the love and appreciation I have for all of those who supported each and every effort.

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I would also like to thank my classmates, especially Pam, Felesha, and Kristi, for their friendship, support,

and encouragement. It is friendships like these that last a lifetime. This class has been one of the best classes that I have been honored to be a member. Through the difficult times, we remained close and stood by one another.

Finally, I would like to thank God for His blessings on my life. In the end He deserves all credit, for He is all that we are. "I can do all things through Christ which strengtheneth me." Philippians 4:13.

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Chapter I

The Research Problem

Emergency contraception, often known as the "morning after pill," is a pharmacologic intervention that can prevent fertilization or implantation after unprotected intercourse (Hawkins, Roberto-Nichols, & Stanley-Haney, 2000). According to Trussel et al. (2000), the current treatment schedule is one dose of emergency contraceptive pills within 72 hours after unprotected intercourse and a second dose 12 hours after the first dose.

Since the 1960s clinicians have prescribed oral contraceptives for emergency contraception, but it was considered an "off-label" use (Morris & Young, 2000). In 1997 the U.S. Food and Drug Administration (FDA) declared emergency contraceptive pills (ECPs) safe and effective which has helped to eliminate some barriers to this method of contraception. According to Levie (2000), there are two methods of emergency contraception: combined estrogen and progestin ECPs, commonly known as the Yuzpe method, and the progestin-only ECPs. According to Trussel et al. (2000), combined ECPs are ordinary birth control pills

containing estrogen and progestin hormones and are commonly referred to as the "morning after pill" which is misleading. ECPs can be initiated sooner than the morning after (immediately after unprotected intercourse) or later (for at least 72 hours after unprotected intercourse).

According to Trussel et al. (2000), 12 brands of combined oral contraceptives are currently available in the United States and approved by the United States Food and Drug Administration (FDA) that can be prescribed for emergency contraception use (Ovral, Ogestrel, Alesse, Levlite, Nordette, Levlen, Levora, Lo/Ovral, Low-Ogestrel, Triphasil, Tri-Leven, and Trivora). Preven, a combination hormone product available in the United States, is a dedicated product specifically marketed for emergency contraception (Trussel et al., 2000). Plan-B, containing progestin-only, is the one dedicated product that is specifically marketed for emergency contraception (Trussel et al., 2000). Ovrette is a progestin-only containing oral contraceptive known as the minipill which can also be prescribed for emergency contraception but is not commonly used (Trussel, 2000).

According to the World Health Organization (WHO) (2000), emergency contraceptive methods are effective, safe, and simple to use. The WHO states that ECPs are thought to prevent ovulation, fertilization, and or

containing estrogen and progestin hormones and are commonly referred to as the "morning after pill" which is misleading. ECPs can be initiated sooner than the morning after (immediately after unprotected intercourse) or later (for at least 72 hours after unprotected intercourse).

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According to the World Health Organization (WHO) (2000), emergency contraceptive methods are effective, safe, and simple to use. The WHO states that ECPs are thought to prevent ovulation, fertilization, and or

implantation, but are not effective once the process of implantation has begun and will not cause an abortion. The WHO declares that the only contraindication for ECPs is pregnancy, but ECPs will not cause harm to a pregnant woman or fetus if inadvertently used during early pregnancy. Therefore, there should be no reason that infants resulting from pregnancies following the failure of emergency contraception should be at increased risk of birth defects. This has led some health experts to suggest that emergency contraception should be available over-the-counter.

The Planned Parenthood Federation of America (2000) is a leading provider of emergency contraception in the United States and offers all safe available emergency contraceptive choices. Planned Parenthood also offers "just-in-case" emergency contraception kits to keep at home, also called EC-to-Go, for women who request the method. The Planned Parenthood of Georgia provides screening for women over the telephone (1-877-ECPILLS), after which a prescription is called to the woman's pharmacy of choice. In Washington State, pharmacists are providing emergency contraception to women for immediate need or in advance of need through collaborative drug therapy agreements with local licensed prescribers, such as physicians, nurse practitioners, advanced registered

nurse practitioners, clinical nurse specialists, or nurse midwives (Wells et al., 1998).

Despite the vast amount of research that has been conducted to prove emergency contraception is a safe and effective method of contraception, there is a concern as to why healthcare providers continue to demonstrate a low rate of counseling women regarding emergency contraception and a low rate of administration. Research has supported that one reason for this concern is a knowledge deficit among health care providers and their attitudes toward emergency contraception.

Establishment of the Problem

Through research conducted over the past 25 years regarding emergency contraception, the assumption that emergency contraception can prevent 1.7 million unintended pregnancies and 800,000 abortions each year can be accepted as a fact. The current rate of unintended pregnancies in the United States is more than 2.7 million. The effectiveness of emergency contraception can be stated that if 100 women have unprotected intercourse once during the second or third week of their cycle, 8 will become pregnant. Utilization of emergency contraception would reduce the women from 8 to 2, which is a 75% reduction in the risk of pregnancy. The need for abortions could be

reduced 50% with the use of emergency contraception such as Yuzpe. Yuzpe is the most commonly used form of emergency contraception in the United States, but other methods include the use of high-dose estrogen, high-dose progestin, danazol, and mifepristone.

It has been demonstrated that women are willing to use emergency contraception and find it an acceptable and effective contraceptive method. Harvey and Beckman (1999) conducted a study of 235 women regarding their experience and satisfaction with emergency contraception. The overwhelming majority (91%) were satisfied with emergency contraception, and 97% stated that they would recommend emergency contraception to family and friends. The findings also supported that women would only use emergency contraception in an emergency and that they would not substitute this method for more effective methods of contraception. Forty-five percent reported contraceptive failure and found emergency contraception an alternative to an unintended pregnancy. Harvey and Beckman (1999) concluded that women were overwhelmingly accepting of ECPs, found them easy to use, and did not intend to substitute them for regular contraceptive use. Harvey and Beckman found that this method is an important addition to the contraceptive options and should be made available to women by health care providers.

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According to Glasier and Baird (1998), women view emergency contraception as an alternative to prevent unintended pregnancy and are open minded to its use. Emergency contraception is an effective means of birth control and can be a benefit to women in the event of contraception failure or in the event of lack of contraception use. Allowing women to have emergency contraception on hand at the time of need can reduce the number of unintended pregnancies. The availability of emergency contraception does not appear to have an effect on women's use of other more effective means of contraception as thought by some healthcare providers.

Emergency contraception has been determined to be a safe contraceptive method by many experts. The FDA established that the use of emergency contraception was safe in 1996. Glasier and Baird (1998) conducted a research study to evaluate the effects of self-administering emergency contraception on 535 women and found that making emergency contraception available at home was safe. Ninety-nine percent of the women in the study used emergency contraception correctly without adverse effects. Findings also supported that making emergency contraception more readily available would not encourage women to use emergency contraception repeatedly, abandon more reliable methods of contraception, affect the

pattern of contraceptive use, or increase risk-taking behaviors. Women in the study actually became more likely to switch from using barrier methods to more reliable oral contraception. Trussel et al. (2000) suggested that emergency contraception could provide a bridge to use of an ongoing contraceptive method for women. Emergency contraception offers reassurance to the 7.9 million women who rely on condoms for protection against unwanted pregnancies in case of condom slippage or breakage.

Research shows that few health care providers counsel women on the availability of emergency contraception and rarely prescribe this method of contraception. Gold and Schein (1997) conducted a study on adolescent health experts and concluded that these experts do prescribe emergency contraception but only a few times per year. The experts stated multiple reasons for limiting their prescribing of emergency contraception including uncertainty whether repeated use of ECPs would pose health risks. One third of the adolescent health experts thought repeated use would be risky, and one fourth thought providing emergency contraception would discourage correct use of other contraceptive methods.

Researchers have proven that a low rate of administration of emergency contraception and a low rate of counseling regarding emergency contraception are

related to knowledge deficits of health care providers. The findings from the Gold and Schein (1997) study suggested that one reason health care providers may infrequently prescribe emergency contraception is a lack of appropriate training and knowledge related to emergency contraception. Gilbert and Newkirk (1999) stated that providing education regarding emergency contraception can be even more challenging, since a majority of clinicians in current practice in the United States are not familiar with this method of contraception. The findings of the Gold and Schein study revealed that only 28% of the adolescent health experts surveyed counsel women regarding emergency contraception at routine health care visits. In a study by Grossman and Grossman (1994), 90% of the U.S. physicians reported that they never or rarely spoke to patients about emergency contraception. Gold and Schein (1997) concluded that many adolescent health experts need to increase their knowledge and understanding regarding the safety and behavioral effects of emergency contraception on young women.

Golden et al. (2001) conducted a research study on pediatricians' knowledge, attitudes, and opinions regarding emergency contraception and concluded that many of the pediatricians surveyed lacked the required knowledge to ensure appropriate prescribing practices.

Many of these pediatricians' concerns for not prescribing emergency contraception were unfounded. Sills, Chamberlain, and Teach (2000) conducted a study regarding the knowledge, attitudes, and practices regarding emergency contraception of pediatricians. The Sills et al. study concluded that knowledge deficits, not attitude-related variables, were significantly associated with the low level of emergency contraception administration and counseling. Findings from a study conducted by Sawyer, Fong, Stankus, and McKeller (1996) stated that there is limited access and availability to emergency contraception due to the knowledge deficit and attitudes of the health care professionals. Gold and Schein (1997) recommended that health care providers should obtain proper training and education regarding emergency contraception. With proper training and education health care providers can feel more comfortable counseling patients on the availability of emergency contraception and its safe use.

Emergency contraception has been proven to be safe, effective, and a widely acceptable method of contraception. There continues to be a concern for the low use, limited access, and lack of availability of emergency contraception. Studies support the fact that knowledge deficits exist among adolescent health experts, such as pediatricians, obstetric-gynecologists, and family

physicians. This knowledge deficit appears to be directly related to the low rates of emergency contraception administration and use. Little research has been conducted regarding nurse practitioners prescribing and counseling practices. Therefore, the purpose of this study was to determine nurse practitioners' management practices and attitudes toward prescribing emergency contraception.

Significance to Nursing

Davies (1997) suggested that the goals of a nurse practitioner should include helping patients prevent unintended pregnancies and empower them to seek routine contraceptive care. Nurse practitioners in numerous practice settings can initiate and promote emergency contraceptive services. Many women will use this initial contact with the health care system as a bridge to routine family planning and gynecological care. Nurse practitioners in women's health can use the annual gynecological exam to provide information and a prescription for ECPs to be used if necessary.

Three common roles nurse practitioners serve in educating women on emergency contraception are patient advocates, educators, and support persons. Knowledge of emergency contraception is important in nurse practitioners' practice. Nurse practitioners caring for

women of childbearing age should educate women on the availability, effectiveness, and side effects of emergency contraception methods and should counsel women regarding the use of emergency contraception. Information regarding emergency contraception should be provided in an unbiased and nonjudgmental manner. Nurse practitioners will not be able to fulfill these roles without the necessary knowledge.

This study was conducted to determine the attitudes of nurse practitioners regarding emergency contraception and their management practices. Having knowledge of emergency contraception can aid nurse practitioners in providing more holistic approach and continuity of care in their primary care practice. In order to provide holistic care and continuity, nurse practitioners must provide education to their patients regarding the availability and use of emergency contraception. Regardless of nurse practitioners' personal, ethical, moral, or professional beliefs, patients have the right to this knowledge. Nurse practitioners must not pass judgment or give biased information to their clients regarding contraception preferences.

This study will add to the body of scientific knowledge of nursing that guides the nursing profession. It is especially relevant since little research has been

conducted on NPs' attitudes and management practices toward emergency contraception. This study has made recommendations for further research to benefit the nursing profession.

The profession of nursing is guided by nursing theory. This study further tests Imogene King's Goal Attainment Theory in research concerning nurse practitioners. King's theory can be used by nurse practitioners to guide their practice and help them set goals with their patients for the optimal outcomes.

Theoretical Framework

King's (1981) Goal Attainment Theory served as the theoretical framework for this study. King defined nursing as a process of human interactions between nurse and client, whereby each perceives the other and the situation. Through communication, they set goals, explored means, and agreed on means to achieve goals. King (1981) designed an open systems framework allowing for feedback as the basis for the Goal Attainment Theory. This conceptual framework is divided into three dynamic interacting systems: (a) personal systems, (b) interpersonal systems, and (c) social systems. King (1981) stated that the Theory of Goal Attainment was derived from the conceptual framework of interpersonal systems. One

type of interpersonal system is a dyad, which is two individuals interacting in the environment. The dyad that was analyzed in this study was the nurse practitioner and the patient.

The research study involved the three open, dynamic, and interacting systems of personal system, interpersonal system, and social system. In the personal system the patient made a decision to seek a nurse practitioner for health care and then made a decision whether or not to use emergency contraception as a method of contraception. The interpersonal system came into effect when the patient sought the nurse practitioner for information and contraceptive choices. This led to an interaction between the nurse practitioner and the patient. During this interaction, information was exchanged. The nurse practitioner and the patient with mutual input attempted to set goals and the means to achieve the goals. During this interaction, the social system had an effect on clients' decision on whether or not to use emergency contraception as a method of contraception. Ethical, moral, religious, and political pressures and biases from the social system affected clients' decisions on emergency contraception as a method of contraception, abortion, and whether to continue the pregnancy.

The Goal Attainment Theory was based on an overall assumption that the focus of nursing is human beings interacting within their environment leading to a state of health for individuals, which is an ability to function in social roles (King, 1981). Role was listed as one of the major concepts and was defined as a relationship with one or more individuals interacting in specific situations for a purpose. The concept of role required individuals to communicate with one another and interact in purposeful ways to achieve goals. By using the concept of role, the researcher attempted to accept and understand the nurse practitioners' attitudes and management practices regarding emergency contraception.

Communication is another major concept of the Goal Attainment Theory and was defined as the process whereby information was given from one person to another. The findings of this research study may be useful in identifying ways health care providers can communicate the different methods of contraception available to patients. Nurse practitioners' participation in the study denoted their knowledge of the poor use and effectiveness of emergency contraception in the United States. They may have realized that their participation might help other health care providers see the importance of the use of

emergency contraception as an option to women of childbearing age.

Interaction, a major concept in the Goal Attainment Theory, has been defined by King (1981) as a process of perception and communication between person and environment and between person and person, represented by verbal and nonverbal behaviors that are goal directed. This concept was related to the study in that nurse practitioners and the patients had to interact to set goals. First, communication had to be achieved and perceptions accepted, then goals were set. Following goal setting the nurse practitioner and patient worked together and made informed decisions on measures to achieve these goals.

King (1981) defined interaction as observable behavior of human beings interacting within their environment and is viewed as the valuation component of human interactions. With transaction there was a need for the nurse practitioner and the patient to exchange their values related to the situation. The act of transacting enabled the nurse practitioner and the patient to identify commonalities to mutually set goals.

The goal of nursing, according to King (1981), is a means to help individuals or groups attain, maintain, and restore health. In this study the researcher chose the

Goal Attainment Theory to reveal the role of the nurse practitioner. Role is a major concept in the Goal Attainment Theory. The role of the nurse practitioner in the current research study was defined as a means to help women of childbearing age remain in their current state of health. When a woman of childbearing age has experienced unprotected intercourse and understands the implication of this behavior, the individual will often seek a health care provider to help prevent an unintended pregnancy. The patient has the right to knowledge that might affect her decision and has the right to be involved in the decisions that will affect her health. Therefore, the nurse practitioner must counsel the patient regarding emergency contraception and make it an available contraceptive option to women.

Statement of the Problem

Emergency contraceptives are effective methods of contraception that can be used after unprotected sexual intercourse. Factors established to prevent health care providers from prescribing emergency contraception include lack of knowledge, the belief that prescribing emergency contraception would discourage correct use of other methods of contraception, and the belief that repeated use of emergency contraception would pose health risks (Gold &

Schein, 1997). Investigators have stated that the first step toward understanding the low use of emergency contraception is understanding the health care providers' knowledge, attitudes, and management practices of emergency contraception. Little research has been conducted regarding nurse practitioners' knowledge, attitudes, and management practices of emergency contraception. Therefore, the problem addressed by this research study was nurse practitioners' attitudes and management practices related to emergency contraception.

Research Questions

The research questions that guided this study are as follows:

1. What are the attitudes of nurse practitioners regarding emergency contraceptives?

2. What are the management practices of nurse practitioners regarding emergency contraception?

Definition of Terms

For the purpose of this study, the following terms were defined:

Attitudes: Theoretical: behavior toward a person, group, thing, or situation representative of conscious or unconscious mental views developed through cumulative experience (Thomas, 1989). Operational: conscious or

unconscious mental views of nurse practitioners nationally toward emergency contraceptives, developed through cumulative experience, as determined by the adapted Adolescent Post-Coital Contraceptive Use: Views of Adolescent Health Care Providers.

Nurse practitioners: Theoretical: registered nurses with advanced preparation in the care of particular types of patients with whom the emphasis is on primary health care. This training includes medical skills (Thomas, 1989). Operational: registered nurses with advanced preparation in the primary health care who are licensed as nurse practitioners, currently practicing in the United States, seeing women of childbearing age, and have web access.

Emergency contraception: Theoretical: methods women can use after unprotected intercourse to prevent pregnancy including pharmacologic or mechanical interventions after exposure to the possibility of conception with no or uncertain contraceptive protection (Hawkins et al., 2000; Van Look & Stewart, 2000). Operational: a pharmacologic intervention after exposure to the possibility of conception, given within 72 hours of unprotected intercourse.

Management practices: Theoretical: the means or acts of writing prescriptions for medications or rendering

medical treatment. Operational: the means or acts of writing prescriptions for emergency contraception as measured by the adapted Adolescent Post-Coital Contraceptive Use: Views of Adolescent Health Care Providers.

Assumptions

For the purpose of this study, the following assumptions were made:

1. Women are at risk for unintended pregnancies.
2. Women visit nurse practitioners as health care providers.
3. Management practices of nurse practitioners regarding emergency contraception is a concept that can be empirically measured.
4. Attitudes of nurse practitioners regarding emergency contraception is a concept that can be empirically measured.

Chapter II

Review of the Literature

A review of the literature revealed anecdotal references to the need for emergency contraception. However, few studies have been conducted related to health care providers' prescribing practices and attitudes toward emergency contraception. No studies were found concerning nurse practitioners prescribing practices or their attitudes toward emergency contraception.

A study was conducted by Gold and Schein (1997) on the use of emergency contraception by adolescent health care experts. Gold and Schein (1997) implemented a national survey of adolescent health experts to explore issues related to emergency contraception. The purpose of the research study was to gain an understanding in the lack of utilization of emergency contraception by adolescents. The basis for the study was to understand the patterns of adolescents' use of emergency contraception. First, there was a need to understand why physicians fail to counsel adolescent patients on the utilization of emergency contraception. The researchers believed that few

physicians of adolescent patients prescribe or offer counseling regarding emergency contraception. The researchers were concerned that low utilization of emergency contraception was partly attributable to health care providers' lack of knowledge regarding this specific contraceptive method.

The two hypotheses generated by Gold and Schein (1997) were as follows:

1. The majority of U.S. adolescent health experts do not prescribe emergency contraceptive pills.

2. A physician's likelihood of prescribing emergency contraception is associated with educational characteristics. Their findings were that the majority of U.S. adolescent health experts prescribe emergency contraceptive pills and a physician's likelihood of prescribing emergency contraception is associated with educational characteristics.

Gold in 1995 developed a survey that consisted of a 71-item interview. The researcher developed the tool for the purpose of conducting this specific research study. Gold and Schein (1997) performed a pilot study on eight adolescent health experts to review the efficiency and validity of the tool. The survey included three components: (a) questions that were formulated to gather data on physicians' educational and demographic

characteristics, (b) questions that were formulated to establish physicians' personal experience providing contraception to adolescents, and (c) questions based on previous studies to explore physicians' attitudes, counseling, and prescribing practices related to emergency contraception.

Physician member lists were obtained from the American Academy of Pediatrics Section of Adolescents Health (AAP Section), the North American Society for Pediatric and Adolescent Gynecology (NASPAG), and the Society for Adolescent Medicine (SAM). The three organizations represented 1,950 U.S. physicians who specialized in adolescent medicine. The sample population was selected by a systematic sampling process by selecting every third member from the NASPAG membership list, selecting every eighth member from the SAM list, and selecting every ninth member from the AAP Section list. If a subject had been chosen from a previous organization member list, that subject would be skipped and the next physician or member on the list would be chosen. The target sample size was 428 adolescent physicians. The researcher performed an analysis to confirm the variability among the physicians, to reveal significant differences, and to ensure that both clinicians and

academic adolescent health experts were included in the sample (Gold & Schein, 1997).

Letters were mailed to the 428 physicians, informing them that the researcher would be calling in 2 weeks to schedule a telephone interview regarding a topic related to adolescent reproductive health. The actual topic was not given to prevent bias. The letters assured the physicians that the interviews would remain confidential and that the purpose of the interview was not to test the physicians' knowledge base. The physicians were informed via letter that the results would be reviewed in aggregate form. Access to 304 physicians was accomplished via telephone interviews. Twenty-six physicians refused to participate in the interview, and the researchers were unable to contact 111 physicians which reduced the final sample size to 167 participants.

The empiricalization of this research study was examined. The design of Gold and Schein's (1997) study was quantitative, cross-sectional, and descriptive. Telephone interviews were utilized as the instrument for data collection. The 20-minute telephone interviews were conducted by the researchers from July to November of 1994. The response rate of Gold and Schein's (1997) survey was 55%. The researchers concluded that there was no systematic bias in the study. Data analysis was

accomplished by incorporating the use of frequency and distribution, and the results were reported by percentages.

The findings from this analysis were reported using four tables: (a) percentage distribution of physicians surveyed about attitudes toward and practices regarding emergency contraception services for adolescents by selected characteristics (n = 167), (b) percentage distribution of physicians by responses to survey questions regarding attitudes toward emergency contraception, (c) percentages of physicians who prescribe emergency contraception to adolescents by prescribing and counseling practices (n = 112), and (d) percentage of physicians surveyed who prescribe emergency contraception to adolescents by statistically significant characteristics (n = 167).

Thirty-six percent of the physicians were located in the Northeast, 25% in the South, 21% in the West, and 18% in the Midwest. The majority (63%) of the sample were female. Twenty-four percent of the sample graduated between 1940 and 1969, and 76% graduated between 1970 and 1990. The majority (67%) specialized in pediatrics. Subjects (73%) of the physicians reported that 50% or more of their female patients are 10 to 25 years old, and 27% reported that less than 50% of their female clients were

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Thirty-six percent of the physicians were located in the Northeast, 25% in the South, 21% in the West, and 18% in the Midwest. The majority (63%) of the sample were female. Twenty-four percent of the sample graduated between 1940 and 1969, and 76% graduated between 1970 and 1990. The majority (67%) specialized in pediatrics. Subjects (73%) of the physicians reported that 50% or more of their female patients are 10 to 25 years old, and 27% reported that less than 50% of their female clients were

10 to 25 years old. When asked if they ever prescribed contraception to adolescents, 84% of the sample reported that they had prescribed contraceptives to adolescents. Academic setting (a university or teaching hospital) (62%) emerged as the most frequent practice site. Gold and Schein (1997) found gender to be significantly correlated with two attitudes. Male physicians were more likely than females to believe that availability of emergency contraception would encourage contraceptive risk-taking (19% vs. 8%) and discourage use of other methods (40% vs. 23%). The physician's likelihood of prescribing emergency contraception was not related to the medical speciality in which he had trained.

Eighty-three percent of the sample did not believe that providing emergency contraceptive pills would encourage contraceptive risk-taking behavior, 12% thought it would, and 5% were unsure. Sixty-one percent did not think that providing emergency contraception pills would discourage compliance with other contraceptive methods, 25% thought it would, and 14% were unsure. Fifty-one percent did not think that repeated use of emergency contraceptive pills would pose health risks, 29% thought it would, and 20% were not sure. Fifty-five percent reported that if they knew in advance that a patient would elect to continue her pregnancy if she encountered a

failure with the emergency contraceptive pills, they would still prescribe it, 38% said they would not, and 7% were unsure. Fifty-two percent indicated that they would not restrict the number of times that they would dispense emergency contraceptive pills to an individual patient, 41% would restrict, and 7% were unsure. Fifty-six percent indicated that they would not prescribe emergency contraceptive pills for the patient to have on hand prior to an episode of unprotected sexual intercourse, 34% said they would, and 10% were unsure. Seventy-seven percent believed that emergency contraceptive pills should not be available over-the-counter (OTC), 34% believed that emergency contraception should, and 8% were unsure. Seventy-five percent stated that they would prescribe mifepristone (RU-486) for emergency contraception if it was approved by the Food and Drug Administration (FDA), 8% said they would not, and 17% were unsure.

Twenty-eight percent of physicians prescribed emergency contraception less than one time per year. Fifty-three percent prescribed it a few times a year. Fifteen percent prescribed emergency contraception at least one time a month or more, and 13% prescribed it only in the emergency department setting. Of the respondents who prescribed emergency contraception, 88% chose Ovral, 29% prescribed Lo-Ovral, 12% prescribed Nordette, 8%

prescribed other hormonal methods, and no respondents prescribed the IUD method to adolescents.

The common practice of prescribing emergency contraception is up to 72 hours after a woman has had unprotected intercourse. This time period is referred to as post-coital time restriction (hours). Fifty-seven percent prescribed emergency contraception when unprotected intercourse time had been 72 hours or less, 29% prescribed only when it had been 48 hours or less, and 11% prescribed after 24 hours or less. Only 1% would prescribe after 72 hours. Sixty-four percent of the respondents stated that they would require a pregnancy test prior to prescribing emergency contraception, 14% would limit the number of times that they will prescribe emergency contraception, 32% would prescribe over the telephone, 25% would require written informed consent, and 46% would use timing of menses to determine prescribing. Forty-one percent of the respondents said they would counsel at visits for contraception or family planning visits, 28% said they would counsel at visits for routine health care, and only 16% would counsel sexually inexperienced adolescents. The study also reported that 18% of the physicians had written information available upon request, 8% had the written information in the exam room, 6% had it available in the waiting room, and 2%

stated they had the information available through other means.

The statistically significant characteristics that affected the likelihood that physicians in the study would prescribe emergency contraception were educational characteristics and practice setting. Ninety-two percent trained in obstetrics and gynecology prescribed emergency contraception and 59% trained in pediatrics. Seventy-seven percent of the physicians who prescribed emergency contraception graduated after 1970, and 35% graduated prior to 1970. Seventy-six percent of subjects in the academic practice site prescribed emergency contraception and 52% prescribed it in other sites.

All respondents reported that they believed emergency contraception was an effective method. Five of the respondents had moral issues related to why they would not prescribe emergency contraception. Twenty percent of the respondents who prescribed and counseled regarding contraception did not incorporate emergency contraception methods. The study revealed four predominant reasons why the sample (20%) did not counsel or prescribe emergency contraception. First, they feared that young women would misreport the number of hours that had elapsed since they had unprotected intercourse. Second, they feared the underreporting of other unprotected sexual encounters

within the same cycle. The third reason could be attributed to the physician's inexperience with the method. Fourth, the physicians claimed there was a lack of requests for the utilization of this method.

Gold and Schein (1997) concluded that contrary to their initial hypotheses the majority of U.S. adolescent health experts prescribe emergency contraceptive pills, while the frequency in which they prescribe is only a few times a year or less. The physicians' attitudes regarding the effects of emergency contraception may be related to their infrequent prescribing practices. Health risk had a predominant effect in that one out of five physicians was unsure regarding the utilization of emergency contraception. One third of the participating physicians believed that repeated use of emergency contraception would be risky. Twenty-five percent of the respondents felt that utilization of emergency contraception would discourage the use of other contraceptive methods.

The Gold and Schein (1997) research on attitudes of physicians toward emergency contraception and their prescribing practices of these medications provided a foundation for the current study. The tool used by Gold and Schein was adapted and used for the purpose of the current research study. While both studies focused on health care providers, the current study investigated

nurse practitioners' attitudes toward and prescribing practices of emergency contraception. Additionally, the Gold and Schein study focused on the use of emergency contraception for adolescents, while the current study examined use of emergency contraception for women of all ages.

In 1996 the Food and Drug Administration approved the use of the emergency contraceptive pill (ECP). According to Sills, Chamberlain, and Teach (2000), minimal research had been conducted, and very little information was available regarding the ECP prescribing practices of pediatricians. The researchers based their study on three research studies that had been conducted to evaluate the health care practices of health care providers to include adolescent health experts, U.S. physicians, reproductive health care providers, family nurse practitioners (FNPs), emergency medicine physicians, and obstetrician-gynecologists (OB/GYNs). The researchers conducted this study to determine if the frequency of ECP administration is related to the physician knowledge and or attitudes regarding its efficacy, side effects, and appropriate use.

The purpose of this research included two objectives: first, to quantify practitioner administration of the ECP among adolescent patients and, second, to determine if such administration was associated with physician

knowledge and attitudes regarding its efficacy, side effects, and appropriate use. To examine the two objectives, Sills et al. (2000) implemented a survey of pediatricians based on the lack of research studies conducted to review pediatrician practices explicitly. The researchers hypothesized that there would be a low rate of pediatricians who would administer the ECP and counsel regarding the ECP to their adolescent patients. The researchers' problem statement inferred the importance of the ECP for adolescents. The importance was determined by the high percentage of births due to unintended pregnancies and the high percentage of elective abortions.

The research study was a nonexperimental, descriptive survey design. Sills et al. (2000) chose their sample population of 236 subjects from the mailing list of active, voting members of the American Academy of Pediatrics (AAP) in the District of Columbia metropolitan area. A total of 121 respondents returned the questionnaire and were included in the study from the sample population of 236 subjects. The nonrespondents were sent two subsequent mailings to try to increase the number of respondents. The study was conducted between March 1998 and June 1998.

The survey was two pages and had been piloted on the emergency medicine physicians at the Children's National

Medical Center to evaluate the adequacy of the survey. The survey consisted of five categories of data. The first category of demographics included the number of teens seen per week (< 10 or ± 10), practice setting (hospital or nonhospital), politics (liberal or non-liberal), religion (Catholic or non-Catholic), age (± 35 years or > 35 years), gender (male or female), and race (white or nonwhite). The second category included four variables regarding the scope of adolescent practice which included asking if the pediatrician knew about the timing of the ECP (yes or no), know who can give the ECP (yes or no), know if the ECP is FDA approved (yes or no), and if pediatricians know the efficacy of the ECP (yes or no). The third category of the survey focused on the ECP related knowledge of pediatricians and the six associations between attitudes and practice characteristics. Questions were as follows:

1. Was there an association between the risk of congenital malformation from ECP and the physicians' practice characteristics? (Yes or No)

2. Was there a concern about giving the ECP? (Yes or No)

3. Was there a concern about giving the ECP prescriptions? (Yes or No)

4. Was there an association between the ECP having serious side effects and the pediatricians practice characteristics? (Yes or No)

Sills et al. (2000) collected the independent variables in this study which included practitioner gender, age, and race; practice volume; practice setting; religious and political ideology; and ECP related knowledge and attitudes. The outcome measures or dependent variables of ECP related practice included ECP administration by the practitioner in the previous 12 months and adolescent counseling by the practitioner about the ECP. Sills et al. (2000) analyzed the knowledge variables individually. The researcher considered the efficacy of ECPs to be 70% to 80% based on previous research. The outcome measures or dependent variables were tested for associations with independent variables using categorical analysis. The researchers used the EpiStat software (Richardson, TX) to perform the χ^2 analysis.

After three mailings 61% of the 236 subjects responded. Seventeen physicians of the 61% were no longer in a local clinical practice, 4 did not have any adolescent patients, and 1 only supplied demographic data; therefore, 22 physicians' or respondents' questionnaires were excluded from further analysis. This exclusion criteria yielded 121 questionnaires for analysis. The

researchers determined 24 respondents (19.8%) had prescribed ECPs in the preceding 12 months, and 29 (24.0%) counseled their adolescent patients regarding ECPs.

The researchers found that demographic variables were not associated with ECP use or counseling practices. Both scope of practice variables were significantly related to ECP related practice. All but one of the respondents had heard of ECPs. Practice outcomes were significantly affected by the knowledge variables of timing and FDA-labeling of ECPs. There was no association between the attitude-related variables and the practice outcomes.

Sills et al. (2000) concluded that there was a significant association between the pediatricians' knowledge and whether or not they administer and counsel regarding ECPs. Attitudes of the physicians did not significantly impact practice outcomes. The authors noted a low rate for both administering ECPs and for counseling their adolescent patients. This finding was consistent with the researchers' original hypothesis. The authors contended that the rates tended to increase and appeared to be directly related to the number of adolescent patients seen weekly. Knowledge deficits emerged as a barrier to ECP-related practices. The researchers determined that their findings were consistent with the previous research reviewed. The researchers suggested that

their findings may identify a barrier to decreasing the adolescent pregnancy rates through emergency contraception. The researchers recommended further research should be conducted and include an intervention which focuses on knowledge.

The Sills et al. (2000) study is germane to the current researcher's effort because it validates the conduction of studies related to emergency contraception among various health care providers. The Sills et al. research involved multiple medical professionals, while the current study focused on nurse practitioners. Both studies examined health care providers' attitudes toward and prescribing practices of emergency contraception.

Galvao et al. (1999) conducted a study for the purpose of determining obstetrician-gynecologists' knowledge and attitudes toward emergency contraception in Brazil. According to Galvao et al., the study was conducted in Brazil because emergency contraception could play a critical role in reducing unwanted pregnancies and the government had included emergency contraception in its family planning guidelines. The problem the researchers addressed was the fact that little knowledge was known about the availability and provision of emergency contraception. Galvao et al. hypothesized that educational efforts that focus on specific prescription information

and the introduction of a dedicated product would greatly improve women's access to emergency contraception in Brazil.

Data were collected using a mail-in survey of members of the Brazilian Federation of Societies of Gynecology and Obstetrics (FEBRASGO) to ensure that the study provided a fairly representative sample of all obstetrician-gynecologists in Brazil. The mail-in survey was a structured questionnaire that included closed- and open-ended questions that asked the physicians about their knowledge, attitudes, and practices regarding emergency contraception (Galvao et al., 1999). The researchers choose 1,003 (10%) of FEBRASGO's members for the population and mailed them the questionnaires. The sample was nationally representative, randomly selected, and consisted of 579 Brazilian obstetrician-gynecologists. Five hundred and seventy-nine (58%) valid questionnaires were returned for data analysis. These data were entered into a computer using a data entry program based on SPSSPC-DE. These data were analyzed using SPSSPC (Galvao et al., 1999).

Demographic data were obtained on each respondent. Sixty-three percent of the respondents were male, and 64% lived in the country's southeastern region. Forty-seven percent had 11 to 20 years of professional work

experience, 24% had 20 to 30 years, 9% had more than 30 years, and 21% had less than 10 years. Fifty-six percent of the respondents worked in state capitals, 37% worked in other cities and rural areas, and 7% worked in both.

According to Galvao et al. (1999), the findings of the study revealed that 567 (98%) of the obstetrician-gynecologists had heard of emergency contraception but lacked specific knowledge regarding emergency contraception. Thirty percent incorrectly believed that emergency contraception acts as an abortifacient, and 14% believed this method was illegal. Sixty-one percent of the respondents reported that they had provided emergency contraception, but only 15% could correctly list the brand name of a pill they prescribed, the dosage and regimen, and the timing of the first dose (Galvao et al., 1999). Therefore, the researchers concluded that educational efforts that focus on specific prescription information and the introduction of a dedicated product would greatly improve women's access to emergency contraception in Brazil.

The Galvao et al. (1999) study was germane to the current research study because it showed evidence that health care providers may be familiar with emergency contraception as a method, but tend to lack specific knowledge regarding its use. Both studies surveyed health

care providers and their beliefs and attitudes related to emergency contraception; however, the Galvao et al. study focused on OB-GYN physicians, while the study under investigation focused on nurse practitioners. Additionally, the Galvao et al. study was conducted in Brazil, while the current research was conducted in the United States.

Glasier and Baird (1998) conducted a research study to investigate how women might behave if emergency contraception were more readily available. The researchers examined how making emergency contraception more readily available to women would affect the number of unintended pregnancies. The problem addressed by the researchers was that many health care providers and the public believed that easy access to emergency contraception promotes promiscuity and unsafe sexual relations and discourages the use of more reliable contraception.

The researchers' sample included 1,083 women, ages 16 to 44 years, who attended a family planning clinic in a large hospital in Edinburgh, Scotland, between January 1994 and December 1996. The participants were randomly selected at follow-up visits for consultation after using emergency contraception or after a therapeutic abortion. The participants were assigned to a treatment group or a control group based on whether their birthday fell on an

even day of the month or an odd day of the month. Five hundred and fifty-three women enrolled in the treatment group. The control group consisted of 530 women. The groups were kept similar on the basis of age, education level, and the number of participants who had used emergency contraception or had a therapeutic abortion.

Each participant in the treatment group was given a replaceable supply of hormonal emergency contraceptive pills to keep at home in the event the pills were needed. The participants were given written instructions on how to properly use the pills, a telephone number in case they had a question, and a notification form. The instructions stated to take two tablets within 72 hours after unprotected intercourse and two tablets 12 hours later and return to the clinic within one week after the date of the expected next menstrual cycle. The purpose of the notification form was that after use of emergency contraception the participant was to mail the notification form with the requested information to the clinic. The notification form included the time of intercourse, time the pills were actually taken, and the date of the participant's last menstrual cycle. At the return visit following use of emergency contraception, the details of the emergency contraception use was confirmed and a pregnancy test was performed if indicated. If the

participant was not pregnant, future contraception was discussed. The participant was then given a choice to withdraw from the study or to continue. If the participants chose to remain in the study, they were given another replacement supply of emergency contraceptive pills with instructions and a notification form.

The control group participants were simply informed about emergency contraception and how to obtain it. They were also reminded that emergency contraception is safe and can be used more than one time. These participants were given the same notification form to mail to the clinic if they used emergency contraception during the following year.

After one year each participant was sent a questionnaire asking about the details of their contraception use and about any pregnancies that occurred. The participants were also questioned whether they thought emergency contraception should be available without a prescription and how much they would be willing to pay for it.

The researchers determined the frequency of use of emergency contraception, the use of other methods of contraception, and the incidence of unintended pregnancies in both groups over a one year period. Chi-square tests with Yates correction for binary factors or Mann-Whitney

test for ordinal factors were used to test the differences between the groups.

The characteristics of the women between the two groups were similar. The women in the treatment group were more likely to return their final questionnaires (p = .03). The women who returned the questionnaires were older ($p < .001$) and more likely to have been recruited after use of emergency contraception than after an abortion ($p < .01$). There was no effect of education on whether the women returned the questionnaire (p = .52).

The number of participants who made results available for analysis were 549 participants of the treatment group and 522 participants of the control group. Thirty-six percent of the women in the treatment group used emergency contraception at least once, 7% twice, 3% three times, and 1% more than three times. Fourteen percent of the control group used emergency contraception once, 10% twice, 2% three times, and < 1% more than three times. The women in the treatment group were significantly more likely to use emergency contraception on only one occasion than those in the control group (36% vs. 14%, $p < .001$), but not likely to use it more than once (12% vs. 13%, p = .77). Ninety-one notification forms were returned, and 98% of the participants had used emergency contraception correctly. Only one woman used emergency contraception incorrectly.

She stated she had lost her instruction sheet and failed to take the second dose.

A failure rate of 3% was determined for emergency contraception during this study. The treatment group used emergency contraception 248 times, and the control group used emergency contraception 139 times for a total 387 times. Twelve pregnancies were reported following use of emergency contraception. There were no serious adverse effects reported after the use of emergency contraception by the participants.

The condom was the most common method of contraception used by the participating women at the beginning of the study. By the end of the study many women had stopped using condoms and started using hormonal oral contraception, but there were no significant differences between the two groups ($p = .07$). Eighty-nine percent of the women in the treatment group said their use of other methods of contraception was unaffected, and 8% reported that the availability of emergency contraception gave them a "peace of mind," but 2% said they took more risks.

There were 28 pregnancies among the 549 women in the treatment group; 18 of these pregnancies were determined to be unintended. There were 33 pregnancies among the 522 women in the control group, and 25 of these pregnancies were determined to be unintended. Fifty-three percent of

the pregnancies in the treatment group were terminated by abortion, and 21% were terminated by the control group.

Detailed information was obtained from 379 women in the treatment group and 326 in the control group. Of these women, 79% of the treatment group and 61% of the control group thought that emergency contraception should be available without a prescription ($p < .001$). Women who entered the study following a therapeutic abortion were more likely to believe that emergency contraception should be available without a prescription. The age of the women appeared to have no effect on their views. Forty-two percent of the treatment group and 52% of the control group were willing to pay about $8 for emergency contraception, and more than 68% between both groups said they would pay about $5.

The researchers concluded from this study that women were able to self-administer emergency contraception correctly, at the appropriate time, and without adverse effects. The women in the study did not abandon more reliable methods of contraception in favor of the repeated use of emergency contraception. The researcher stated that making emergency contraception more easily obtainable did no harm and might reduce the rate of unwanted pregnancies, thereby decreasing the number of abortions.

The Glasier and Baird (1998) research was germane to the current research study because both studies examined attitudes and beliefs about emergency contraception. While the Glasier and Baird research investigated attitudes of women using emergency contraception, the current study focused on nurse practitioners who were able to prescribe emergency contraception. The two studies also differed in setting, as the Glasier and Baird study was conducted in Scotland, while the current study was conducted in the United States.

Harvey and Beckman (1999) conducted a research study to evaluate women's experience and satisfaction with emergency contraception. The researchers conducted telephone interviews with 235 women who had received emergency contraception pills through a demonstration project at 13 Kaiser Permanente medical offices in San Diego, California. The interview included open- and closed-ended questions that examined (a) how women found out about emergency contraception, (b) their reasons for having unprotected intercourse, (c) any side effects experienced, (d) acceptability and satisfaction of emergency contraception as a method of contraception, (e) their willingness to use the method in the future, and (f) their attitudes regarding how emergency contraception should be distributed.

The names of the adult women over age 18 who received emergency contraception were obtained from the healthcare providers between January 1997 and February 1998. A letter was sent to these women informing them they would be contacted to participate in a telephone interview regarding emergency contraception. The women were provided with a preaddressed postcard to return to the health care provider if they wanted to decline participation. Three hundred seventy-five women consented to participate by default (failure to return the postcard), of which 78 were not reachable by telephone, 49 declined by telephone, and 248 were interviewed. Thirteen of the women had not taken the emergency contraceptive pills at the time of the interview. Two hundred thirty-five women had used the emergency contraceptive pills and their data were used for analysis. The Statistical Package for Social Sciences (SPSS) software program was used for data analysis. Simple frequencies and chi-square analyses were performed.

Characteristics of the 235 participating women included age (18 to 48), race (10% Black, 47% non-Hispanic white, 25% Hispanic, 8% Asian/Pacific Islander, 10% Other), highly educated (46% had some college education, 32% had graduated from college, 22% had completed high school), marital status (64% single, 23% married, 13% separated/divorced), 43% had delivered at least one child,

20% reported a previous miscarriage, 47% reported having an abortion, and 86% had never used emergency contraception.

When the women were asked how they found out about emergency contraception, 29% reported they had heard about emergency contraception from Kaiser Permanente staff, 25% through brochures, posters, and classes at Kaiser Permanente medical offices, 17% through family or friends, 12% through media (local newspapers and magazines), and 23% through other means (human sexuality classes, planned parenthood clinics, and other family planning and health care providers). Seventy-eight percent of the women said they asked for this method of contraception whereas 22% were offered this method.

When asked if they were using a method of contraception before the need for emergency contraception, 70% responded yes. Of these women who were using another method, 73% were using condoms, 17% were using oral contraceptives, and the remaining 10% were using other methods (diaphragm, injectable, IUD, spermicides, rhythm, or withdrawal). The most frequently cited situation leading to unprotected intercourse by 45% of the women was that a condom broke or slipped. Twenty-three percent of the women stated they had unplanned intercourse, 9% forgot to use a method, and 6% did not want to use a method.

Sixty-one percent of the women claimed they had contacted Kaiser Permanente within 12 hours of having unprotected intercourse, 24% within 12 to 24 hours, 15% more than 24 hours after, but only 4% after 72 hours.

The women were read a list of possible side effects during the interview and asked if they had experienced them within 48 hours after use of emergency contraception. Eighty-one percent reported at least one side effect. Forty-eight percent experienced drowsiness, 20% dizziness, 16% dry mouth, 14% cramps, 13% bleeding, 12% headache, 12% breast tenderness, 35% nausea after first dose, 34% nausea after second dose, and 9% vomiting after either dose. The researchers attributed the 48% of women experiencing drowsiness to the anti-nauseant that was given with the emergency contraceptive pills, diphenhydramine, since drowsiness is a well-known side effect of it and not with oral contraceptive use. The effectiveness of the anti-nauseant was not evaluated in this study.

The women were questioned regarding their satisfaction with and acceptability of the emergency contraceptive pills. Ninety-nine percent of the women said they found the emergency contraceptive pills easy to use. Ninety percent reported that the emergency contraceptive pills were effective against preventing unintended pregnancies. Six (3%) of the women who used the emergency

contraceptive pills became pregnant. Of the six women who reported becoming pregnant, one took the pills after 72 hours, while 2 had multiple episodes of unprotected intercourse between the time they took the pills and were interviewed. Seventy-seven percent of the women reported being very satisfied with the emergency contraceptive pills, 14% somewhat satisfied, 6% felt neutral, 2% somewhat dissatisfied, and 1% very dissatisfied. A total of 6 women reported being dissatisfied, and 5 of these women had become pregnant. Reasons for dissatisfaction included side effects and failure of the pills to work. The researchers compared the 183 satisfied women to the 53 dissatisfied women using chi-square analysis, with p value set at $< .01$. No significant differences emerged in the women's age, education, race, religion, or history of abortion. Ninety-seven percent of the women stated that they would recommend emergency contraception to family and friends. Ninety-three percent stated that they would use emergency contraception again. Ninety-seven percent stated they would only use emergency contraception in the future in an emergency, 2% stated they would use it as a contraceptive method, and 1% stated she would use it as a regular contraceptive method.

The women were asked whether or not they informed their partner regarding their use of emergency

contraception. Eighty-four percent informed their partner, and 92% stated that informing their partners would not make their partners less willing to use other means of contraception.

The women were asked questions regarding making emergency contraception available over-the-counter or in vending machines. Additionally, subjects were asked if women should be supplied with emergency contraceptive pills for future use. Twenty-eight percent stated emergency contraceptive pills should be available over-the-counter, and 6% thought they should be available in vending machines. Sixty-nine percent thought emergency contraceptive pills should be given to women for future use in case of unprotected intercourse.

The Harvey and Beckman (1999) study on emergency contraception was germane to the current study. While both studies examined emergency contraception use, the current study surveyed nurse practitioners, while the Harvey and Beckman study surveyed women who used emergency contraception. Both studies focused on attitudes related to emergency contraception.

Golden et al. (2001) conducted a study to assess the knowledge, attitudes, and opinions of practicing pediatricians regarding the use of emergency contraception in adolescents. The researchers mailed anonymous

questionnaires to 954 active members of New York, Chapter 2, District II of the American Academy of Pediatrics in January 1999. Pediatricians in training were excluded. The data were analyzed according to physician age, gender, year completed residency, and practice type.

The questionnaire was adapted from Gold and Schein (1997) and included 30 forced-choice questions assessing demographic data, type of practice, frequency of prescribing emergency contraception, comfort in doing so, and reasons for not doing so. The researchers used a 5-point Likert scale on the questions regarding frequency, comfort, and satisfaction with knowledge. Basic knowledge of the pediatricians was assessed by the questionnaire regarding indications for prescribing emergency contraception, period of time after unprotected intercourse that it could be prescribed, and methods of emergency contraception that were FDA approved. At the time that the questionnaire was developed Preven and Plan B were not FDA approved and were not included as choices on the questionnaire.

Data were computer-tabulated and analyzed using the Statistical Package for Social Sciences (SPSS) software program (Version 9.0). For purpose of analysis, participants were divided into three groups based on age ($\leq$ 40, 41-50, and > 50). Chi-square analysis for

categorical variables was used to analyze the responses to the questionnaires by age of pediatrician, gender, year completed residency, and type of practice.

Characteristics of the respondents included a mean age of 47.1 $\pm$ 9.7. Additionally, 123 (53.7%) of respondents were female. Other data gathered included the year graduated residency (2.3% before 1960, 12.7% from 1961 to 1970, 25.9% from 1971 to 1980, 35% from 1981 to 1990, 24% after 1990), and type of practice (35.6% group private practice, 27.4% solo private practice, 15.5% academic practice, 10.5% hospital-based clinic, and 5.5% HMO).

Forty-three percent of the pediatricians had a chance to learn about emergency contraception. Twenty-three percent (55 pediatricians) had been confronted with the decision to prescribe. Thirty-four percent reported either not having the opportunity to learn about emergency contraception and had not had the opportunity to prescribe emergency contraception. Of the 55 pediatricians who had been asked to prescribe emergency contraception, 66% was because of unprotected intercourse, 49% rape, and 46% because a condom broke. When the 55 pediatricians were asked if they had been asked to prescribe emergency contraception in the last 12 months, 93% reported they had been asked, and only 75% prescribed emergency

contraception in the last 12 months. There were no significant differences in request for emergency contraception or in prescribing patterns by gender or practice type. In comparing the older physicians to those under 40 years of age, the younger physicians were more likely to be faced with the decision to prescribe emergency contraception ($p < .01$). During health maintenance visits, 79% of the pediatricians counseled adolescents about methods of contraception, and only 16.7% counseled adolescents about the availability of emergency contraception. Female pediatricians compared to the male pediatricians were more likely to counsel their adolescents about both contraception ($p = .03$) and emergency contraception ($p = .02$).

The researchers assessed the knowledge of the pediatricians by asking if they knew the maximum time for prescribing emergency contraception. Twenty-eight percent answered correctly within 72 hours after unprotected intercourse while 32% underestimated the time and 40% answered they did not know the time. Younger pediatricians ($p = .001$) and female pediatricians ($p = .02$) were more likely to answer this question correctly. Seventy-three percent of the pediatricians could not identify any of the FDA approved methods of emergency contraception. Younger pediatricians ($p = .02$), more recent graduates ($p = .02$),

and those in academic or hospital-based practice (p = .004) were more likely to report the ability to identify at least one of the FDA approved regimens. Fifty percent of the pediatricians reported correctly that a physical examination or pelvic exam was not necessary prior to prescribing emergency contraception in a mature adolescent known to the physician. Sixty-four percent answered correctly regarding the need for a pregnancy test prior to prescribing emergency contraception. Twenty-five percent of the pediatricians stated it was not necessary, but advisable, to obtain informed consent for emergency contraception. Sixty-five percent stated the informed consent was not necessary for emergency contraception. The researcher concluded that there were no differences in knowledge about the need for pelvic examination, need for pregnancy test, or need for informed consent by age, gender, or practice type.

The pediatricians were questioned regarding how comfortable they were with prescribing emergency contraception: 32% felt comfortable, somewhat comfortable, or very comfortable; 68% felt somewhat or very uncomfortable. There were no differences in comfort level based on age, gender, or whether they classified themselves as general pediatricians or subspecialists. The mean age of the pediatricians who felt comfortable was

45.1 ± 8.8 years, compared with 47.9 ± 10.0 years (p = .10) for those who did not feel comfortable. Thirty-five percent (43 of 122) of the female pediatricians responding to the questionnaire felt comfortable, compared with 28% (28 of 102) of the male pediatricians who felt comfortable (p = .27). Thirty-nine percent of the academic practice felt comfortable compared to 29% of those practicing in the community who felt comfortable prescribing emergency contraception (p = .21).

When the pediatricians were asked for reasons for not prescribing emergency contraception, 70% stated inexperience with use of emergency contraception, 12% cited moral or religious grounds, and 17% feared teratogenic effects if the patient was already pregnant. One pediatrician did not believe emergency contraception was effective. Of those pediatricians who did not prescribe emergency contraception, 42% would refer the patient to a local gynecologist, 22% would refer to Planned Parenthood, and 18% would refer to the emergency department of a local hospital. Eighty-eight percent of the pediatricians surveyed stated that they would either be interested or very interested in learning more about the topic. Only 26% reported being satisfied with their current knowledge level regarding emergency contraception.

When the pediatricians were asked questions regarding their opinions, 22% responded that providing emergency contraception would encourage adolescent risk-taking behaviors, 52% stated they would restrict the number of times they would prescribe emergency contraception to an individual patient, and only 17% would prescribe emergency contraception to adolescents to have on hand for future need. Fifty percent of the pediatricians were unsure of potential health risks related to repeated use of emergency contraception and were concerned that providing emergency contraception would decrease the compliance with other methods of contraception. Twenty percent reported that emergency contraception should be available over-the-counter. When the male pediatricians were compared to female pediatricians, the females were more likely to believe that adolescents would not use other methods of contraception effectively if emergency contraception were easily available ($p = .02$), to fear teratogenic effects if adolescents were already pregnant ($p = .01$), to restrict the number of times they would prescribe emergency contraception to an individual patient ($p = .02$), and to think that emergency contraception should not be available over-the-counter ($p = .005$).

The Golden et al. (2001) study was germane to the current study because it adds validity to the tool used to

assess the knowledge and attitudes of health care providers toward emergency contraception, as both studies utilized the same instrument to gather data. Golden et al. adapted the tool to conduct their research which is the same tool that the current researcher also adapted for the study under investigation. The studies differed in that the Golden et al. research surveyed pediatricians, while the current study surveyed nurse practitioners. The studies also differed in setting, as the Golden et al. study was conducted in a populous, urban state, while the current study was conducted nationwide via the Internet.

A review of literature found several studies related to women's attitudes about the use of emergency contraception. Other studies were found that examined various medical professionals' beliefs about emergency contraception as well as their prescribing practices of this contraceptive method. Researchers recommended that further studies in this area be conducted. No studies were found concerning nurse practitioners' attitudes or prescribing practices of emergency contraception, thereby establishing a need for conduction of the current study.

Chapter III

The Method

The purpose of this study was to examine nurse practitioners' attitudes about and management practices with emergency contraception. This chapter presents the design of the study and a description of the setting, population, and sample. The methods of data collection, instrumentation, procedures, and method of data analysis are also included.

Design of the Study

The research design used in this study was descriptive. Polit and Hungler (1999) state that the purpose of descriptive research is to observe, describe, and document aspects of a situation as it naturally occurs. Descriptive research was chosen by the current researcher for the purpose of accurate portrayal of the characteristics of nurse practitioners, their attitudes, and management practices with emergency contraception.

Setting, Population, and Sample

The setting for this study was the United States accessed via the WWW through the Internet. In 1996 it was estimated that there were approximately 71,000 registered nurses who had obtained formal preparation to practice as nurse practitioners in the United States. The population utilized was nurse practitioners certified and practicing in the United States who had access to the Internet at the time of data collection and provided care to women of childbearing age. The target sample consisted of 100 subjects who met the criteria and who voluntarily agreed to participate in the study. The researcher stopped the survey once 57 acceptable participants completed the survey and sent the responses via the Internet. A convenience sampling design was used for the study.

Instrumentation

A survey titled Adolescent Post-Coital Contraceptive Use: View of Adolescent Health Care Providers created by Gold and Schein (1997) was adapted for this study. Permission to adapt the tool was obtained verbally, via E-mail and in writing (see Appendix A). According to Polit and Hungler (1999), a survey is designed to obtain information from populations regarding prevalence, distribution, and interrelations of variables within those

populations. Data were collected using the Demographic Data Form (see Appendix B) developed by the researcher and the adapted tool, Adolescent Post-Coital Contraceptive Use: Views of Adolescent Health Care Providers (see Appendix C).

The Demographic Data Form consisted of eight items regarding the nurse practitioners' race, gender, religion, age, years of nurse practitioner graduation, specialty, practice settings, and country of practice. The adapted Adolescent Post-Coital Contraceptive Use: View of Adolescent Health Care Providers questionnaire included 31 items regarding attitudes and management practices of nurse practitioners. All 31 items were checklist-type questions. Questions 2-9, 14-26, 28, and 30 were items that could be answered yes, no or unsure, related to the nurse practitioners' attitudes and management practices of emergency contraception. Questions 1, 10-13, 27, 29, and 31 were checklist-type questions that inquired about the percentage of clients seen by nurse practitioners who were female, how often nurse practitioners prescribed emergency contraception, what methods they prescribed, the time restrictions used, frequency for request for emergency contraception, whether nurse practitioners limit the number of times they dispense emergency contraception, side effects to emergency contraception that nurse

practitioners have encountered, and reasons why health care providers did not prescribe emergency contraception. The current researcher assumed that the instruments had face validity within the confines of this study as determined by a panel of experts.

Procedure

Permission to conduct this research study was obtained from the Mississippi University for Women Committee on Use of Human Subjects in Experimentation (see Appendix D). After obtaining permission, nurse practitioners were invited to participate in the study through two listservs and a homepage posted on the World Wide Web. The posted invitation included the hyperlink, http://nt1.icc.cc.ms.us/kirksey/Default.htm, for the survey. The hyperlink was made available on the Internet at Npinfo@nurse.net, NP-clinical@nurse.net, and http://www.npwh.org/mainpage.htm. The researcher also was able to post the hyperlink on the site for ongoing research at http://www.nurse.net/research.shtml. The survey was accessed through the researcher's homepage. The researcher designed the homepage so that the participants could gain access to a Letter of Information (see Appendix E) by clicking the "Thank you in advance for your participation" option. The Letter of Information yielded

information about the researcher and the purpose of the study. Informed consent was included in the Letter of Information. The participants gave implied consent by clicking the "Click to participate" option which allowed them access to the demographic data form and the adapted Adolescent Post-Coital Contraceptive Use: Views of Adolescent Health Care Providers. Upon the completion of the forms, the participants forwarded their responses to the researcher's E-mail address by clicking the "Submit my survey" option. To allow the participants to withdraw from the study at any time, the researcher chose to use a unique number entered by each individual participant. This unique number consisted of the participants area code followed by the last four digits of their telephone number. By not obtaining the participants' names confidentiality was maintained.

The researcher printed each response with the unique number for the purpose of data analysis. After successful printing of the responses, the participants' responses were deleted permanently from the researcher's E-mail box. With the use of this process, the researcher was able to maintain confidentiality for each participant. The researcher retained the printed survey responses in a locked file cabinet. This information was accessible only

to the researcher until final analysis was completed. Upon final data analysis, the survey responses were destroyed.

Data Analysis

Descriptive statistics including frequency distributions and percentages were used to describe and summarize the demographic and questionnaire data. Item-by-item analysis was performed.

Summary

In this chapter, the empiricalization of the research study, which examined the management and counseling practices of nurse practitioners in the United States, was described. The design of the study, as well as the setting, population, and sample, was discussed. The instrumentation and methods of data collection were explained in detail. Finally, the methods of data analysis were addressed.

Chapter IV

The Findings

The purpose of this study was to determine the attitudes of nurse practitioners regarding emergency contraception and their management practices. A nonexperimental, descriptive study was conducted of nurse practitioners who responded to surveys posted on the Internet regarding emergency contraception. The research sample was composed of 57 nurse practitioners between the ages of 28 and 60 years. Data for the study were obtained using a survey which was posted on the World Wide Web and returned via E-mail. An adapted version of the Adolescent Post-Coital Contraceptive Use: Views of Adolescent Health Care Providers survey was utilized for data collection. The Demographic Data Form was used to determine participants' characteristics.

Characteristics of the Sample

The sample of participating nurse practitioners was distributed throughout the United States. This study was comprised of 57 nurse practitioners who had a computer and

access to the World Wide Web. To meet the inclusion criteria, the participants had to provide care to women of childbearing age. A total of 59 nurse practitioners e-mailed a response to the survey via the Internet. However, only 57 of the respondents met the sample criteria. The remaining 2 respondents failed to answer every item on the survey; therefore, they were excluded from the sample (N = 57).

The respondents ranged in age from 28 to 60 years (M = 44.1 years). The nurse practitioners in the sample were predominantly female (86%), Caucasian (93%), Protestant (38.6%), and Catholic (31.6%). A majority had graduated from nurse practitioner school after 1991 (78.9%). Some 70.2% of participants were family nurse practitioners, 21.1% were nurse midwives, and 7% were adult nurse practitioners. Overall, 80% reported that at least half of their patients were women. Most of the participants (52.6%) described their practice setting as situated in a primary care clinic. Descriptive information regarding demographic characteristics of the sample are depicted in Table 1.

Table 1

Demographic Characteristics of the Sample by Frequency and Percentage

Demographic characteristic	f[a]	%[b]
Race		
Caucasian	53	93.0
African American	1	1.8
Latino/Hispanic/Mexican	2	3.4
South Asian	1	1.8
Gender		
Male	8	14.0
Female	49	86.0
Religion		
Protestant	22	38.6
Jewish	5	8.7
Catholic	18	31.6
Non/Atheist	3	5.3
Unitarian	3	5.3
Other (Wiccan, Muslim, Animist, Bahai)	6	10.5
Age (years)		
21 to 30	5	8.7
31 to 40	13	22.8
41 to 50	25	43.9
51 to 60	14	24.6
> 60	0	0.0
Year of nurse practitioner graduation		
1966 to 1970	1	1.8
1971 to 1980	4	7.0
1981 to 1990	7	12.3
1991 to 2000	45	78.9

(table continues)

Table 1 (continued)

Demographic characteristic	f[a]	%[b]
Nurse practitioner speciality		
Pediatrics	1	1.7
Adult	4	7.0
Ob/Gyn (Nurse Midwife)	12	21.1
Family	40	70.2
Practice setting		
Academic	4	7.0
Primary care clinic	30	52.6
Emergency department	6	10.5
Health department	6	10.5
Planned parenthood	4	7.0
College health	4	7.0
Ob/Gyn office	3	5.4
Country of practice		
United States	57	100.0

[a]N = 57.

[b]Percentages were rounded to the nearest tenth place.

Findings Related to the Research Questions

Two research questions guided this investigation. The questions were as follows:

1. What are the attitudes of nurse practitioners regarding emergency contraceptives?

2. What are the management practices of nurse practitioners regarding emergency contraception?

An adapted version of the Adolescent Post-Coital Contraceptive Use: Views of Adolescent Health Care

Providers survey was used to answer the research questions. Eight questions asked about the attitudes (4-9, 12, 30), and 23 questions asked about respondents' management practices. To answer the research questions, the nurse practitioners were asked a total of 31 questions. See Appendix F for the raw data analysis and participants' responses to the survey, item by item.

Data Analysis

An adapted version of the Adolescent Post-Coital Contraceptive Use: Views of Adolescent Health Care Providers survey was used to determine the attitudes and management practices of the participants (nurse practitioners). Data were analyzed to answer the two research questions that guided the current study. An item-by-item analysis was performed, and the results were reported using frequencies and percentages.

The questions related to nurse practitioners' attitudes toward emergency contraception represented frequently cited concerns noted in the literature regarding the use of the method. In Question 4 the nurse practitioners reported if they thought providing emergency contraceptive pills encouraged contraceptive risk-taking behaviors. Eighty-six percent said no, 8.8% yes, and 5.2% unsure. In Question 5, when asked if providing emergency

contraceptive pills discouraged compliance with other contraceptive barriers, 82.5% reported no, 10.5% yes, and 7% unsure. When asked in Question 6 if they thought repeated use of emergency contraceptive pills would pose health risks, 63.2% reported no, 26.3% yes, and 10.5% unsure. When asked if the respondents would restrict the number of times they would dispense emergency contraceptive pills to an individual (Question 7), 49.1% reported no, 28.1 yes, and 22.8% unsure. In response to Question 8, if they would consider prescribing emergency contraceptive pills for the patient to have on hand prior to an episode of unprotected sexual intercourse, 71.9% reported yes, 24.6% no, and 3.5% unsure. Asked if they thought emergency contraceptive pills should be available over-the-counter, without a prescription (Question 9), 56.1% reported yes, 31.6% no, and 12.3% unsure. Question 12 asked the respondents to report the reasons they used certain regimens of emergency contraceptive pills: 28.1% said cost, 49.1% said the availability of samples or convenience, and 38.6% said familiarity or experience. Question 30 asked the respondents, now that RU-486 (mifepristone) had been approved by the U.S. Food and Drug Administration, would they refer a patient to a physician for RU-486. Sixty-five percent reported yes, 17.5% no, and 17.5% unsure.

Twenty-three questions (1-3, 10-11, 13-29, 31) were used to determine nurse practitioners' management practices regarding emergency contraception. In Question 1 participants were asked what percent of the nurse practitioners' patients were female. Eighty percent reported $\geq$ 50%, and 20% reported < 50%. In Question 2, if the respondent ever prescribed emergency contraception, 82% reported yes and 18% no. In regard to counseling female patients on the availability and utilization of emergency contraception, 86% of the nurse practitioners reported yes and 15% reported no. In response to Question 10, how often the respondent prescribed emergency contraception, 31.6% reported one time a month, 21% one time per year, 14% never, 12.4% 4 to 6 times per year, 10.5% one time per week, and 10.5% 3 to 6 times per week. When asked what method or methods did the respondents prescribe for emergency contraception, 49.1% reported oral contraceptives, 45.6% reported Plan B, and 31.6% reported Preven Pack. Question 13 revealed that the respondents' post-coital time restriction was 56.1% $\leq$ 72 hours, 35% > 72 hours, 7.1% $\leq$ 48 hours, and 1.8% $\leq$ 24 hours. When questioned (Question 14) if they required a pregnancy test prior to prescribing emergency contraception, 57.9% reported yes, 36.8% reported no, and 5.3% reported unsure. The participants were asked if they prescribe emergency

contraception over the telephone; 66.7% reported no and 29.8% reported yes. Question 16 asked if the respondents required the patient to sign a written informed consent form; 64.9% reported no and 31.6% reported yes. Whether they used the patients' timing of menses to determine prescribing, 77.2% of the respondents reported no and 17.5% reported yes. In Question 18 respondents were asked if they counsel on the availability of emergency contraception at patient visits for routine health care; 49.1% reported no and 47.4% reported yes. Respondents were asked (Question 19) if they counseled on emergency contraception at patient visits for contraception; 52.6% reported yes and 45.6% reported no. In Question 20 respondents were asked if they counseled sexually inexperienced women on emergency contraception; 56.1% reported yes and 38.6% no. Question 21 asked if the respondents had written information on emergency contraception available at their practice site; 68.4% reported yes and 29.8% reported no. Respondents were asked if they counsel on emergency contraception only on request (Question 22), 56.1% reported no and 43.9% yes. In Question 23, if respondents counseled on emergency contraception in the exam room, 94.7% reported yes and 5.3% reported no. When asked if they counseled on emergency contraception in the waiting room (via posters

and brochures), 66.7% reported no and 33.3% reported yes. For Question 25 the respondents reported 68.4% no and 31.6% yes that they had other means for counseling on emergency contraception. The 31.6% of the respondents who reported using other means for counseling on emergency contraception cited websites, HMO handbooks, availability printed on bags of condoms, health educators, and outreach presentations as sources. In Question 26 respondents were asked if they routinely offer an antiemetic when they prescribed emergency contraception, 49.1% reported no and 43.9% reported yes. When asked how often the respondents get a request for emergency contraception (Question 27), 31.6% reported once a month or more, 28.1% less than once per year, 28.1% a few times per year, 7% several times per week, and 5.3% weekly. Question 28 asked the respondents if they would restrict the number of times they dispensed emergency contraception, 73.7% reported no and 15.8% reported yes. In Question 29 the respondents were asked what side effects of emergency contraception were their patients encountering, 68.4% reported nausea, 40.4% vomiting, 29.8% menstrual irregularities, 8.8% dizziness, 7% abdominal cramps, and 7% failure to prevent pregnancy.

Lastly, Question 31 listed common reasons why health care providers fail to prescribe emergency contraception and asked the respondents who had never prescribed

emergency contraception to select the reasons that applied to them. See Table 2 for responses.

Table 2

Reasons Why Health Care Providers do not Prescribe Emergency Contraception

Survey item	f[a]	%[b]
31. Listed are a number of reasons why health care providers do not prescribe emergency contraception. Which of the following reasons are TRUE to you?		
Inexperience with use	10	17.5
Reservations on moral or religious grounds	7	12.3
Do not trust the patient's report that she had no other prior episodes of unprotected intercourse during the cycle	2	3.5
Believe that patients would not use other contraceptive methods effectively if emergency contraception were easily available	3	5.3
Patients never request emergency contraception within the appropriate time frame from last unprotected intercourse	6	10.5
Not FDA approved	2	3.5
Emergency contraception is not effective	0	0.0
Fear of teratogenic effect if patient is already pregnant	5	8.8

(table continues)

Table 2 (continued)

Survey item	f[a]	%[b]
Other reasons (Don't think to discuss it; Prefer other birth control method; Philosophy of hospital where NP practice; Cause low use of condom; or refer them to primary care provider)	5	8.8

[a]N = 57.

[b]Percentages were rounded to the nearest tenth place. Not all participants answered all questions.

Summary

Data collected and analyzed for this study have been presented in Chapter IV. Predominantly, the majority of the respondents were Caucasian (93%), female (86%), Protestant (39%), between the ages of 41 and 50 years (43.9%), and practice in the United States. Data analysis revealed that the majority of nurse practitioners in the United States prescribe emergency contraception. However, 44% prescribe this method only a few times a year or less. This chapter presented the results of data analysis using descriptive statistics. Results of the data collection were reported in narrative and table format.

Chapter V

The Outcomes

Emergency contraception is one of the many contraception methods that can be used by women to prevent unwanted pregnancies. In 1996 the U.S. Food and Drug Administration deemed emergency contraception as a safe and effective method of contraception. Women are open-minded to the use of emergency contraception and have demonstrated correct use. Health care providers fail to counsel patients regarding emergency contraception and its availability. Health care providers either fail to prescribe emergency contraception or prescribe this method only a few times a year. Thus, the purpose of this study was to determine nurse practitioners' attitudes and management practices regarding emergency contraception.

The research questions for this study were as follows:

1. What are the attitudes of nurse practitioners regarding emergency contraception?

2. What are the management practices of nurse practitioners regarding emergency contraception?

Imogene King's Goal Attainment Theory served as the theoretical framework for this study. The sample consisted of 57 nurse practitioners throughout the United States who had a computer and access to the World Wide Web. The participants, ranging in age from 28 to 60 years, were predominantly female and Protestant. An adapted version of the Adolescent Post-Coital Use: Views of Adolescent Health Care Providers survey and a demographic data form were used to elicit data needed for this research. Participants were asked to complete the survey and submit responses back to the researcher via E-mail.

Discussion of the Findings

Findings for the first research question, what are the attitudes of nurse practitioners regarding emergency contraception?, reflected that the majority (86%) of nurse practitioners in the United States did not think provision of emergency contraception would encourage risk-taking behaviors, nor would it discourage women from using other contraceptive methods (82.5%). These findings are supported by similar findings in the Gold and Schein (1997) study which reported that 83% of physicians did not think provision of emergency contraception would encourage adolescent contraceptive risk-taking behaviors or would

discourage adolescents from using other contraceptive methods (61%).

In the study by Gold and Schein (1997), 29% of physicians expressed concern that repeated use of emergency contraception would pose a health risk. The current study reported 26% of the respondents thought that repeated use would pose a health risk. The current study also reported that 49.1% of the nurse practitioners would not restrict the number of times they would prescribe emergency contraception to any one patient, and 52% of the physicians in the Gold and Schein study reported that they would not prescribe emergency contraception.

In contrast to 52% of the physicians in the Gold and Schein study, 72% of the nurse practitioners in this study reported they would consider giving emergency contraception to women to have on hand in case they had unprotected intercourse. However, a lower percentage of nurse practitioners (31%) in the current study did not believe emergency contraception should be available over-the-counter as compared to 77% of the physicians in the Gold and Schein study. These differences could be related to cultural characteristics of the samples. The Gold and Schein sample consisted of only 63% female as compared to 86% in the current study sample. Physicians may also see this as a means of protecting their prescribing practices,

where nurse practitioners are more concerned with making emergency contraception more readily available to women.

Sixty-five percent of the nurse practitioners stated that they would refer a patient to a physician for RU-486 (mifepristone) since it has been approved for use by the U.S. Food and Drug Administration. Seventy-five percent of the physicians in the Gold and Schein (1997) study stated they would prescribe RU-486 to a patient if it was approved for use by the Food and Drug Administration in the United States. This similarity represents that health care providers strive to meet their patients' needs, regardless of their own moral and religious beliefs.

The second research question that guided this study was as follows: What are the management practices of nurse practitioners regarding emergency contraception? Of the 86% of nurse practitioners who prescribed emergency contraception, only 44% prescribed this method only a few times per year. This finding was extremely lower compared to the findings of the Gold and Schein study which reported that of the 80% physicians who prescribed emergency contraception, 81% prescribed this method a few times per year. This difference between physician and nurse practitioner prescribing practices could be related to the nurse practitioners' attitudes about the effects of emergency contraception. A majority of the nurse

practitioners in the current study reflected more positive attitudes toward emergency contraception than did the physicians in the Gold and Schein (1997) study. Twelve percent of the physicians in the Gold and Schein study believed that providing emergency contraceptive pills would encourage risk-taking behaviors, and only 8.8% of the nurse practitioners thought providing emergency contraception would encourage risk-taking behaviors. Only 10.5% of nurse practitioners in the current study thought that providing emergency contraception would discourage compliance with other contraceptive barriers, whereas 25% of physicians in the Gold and Schein study thought it would discourage compliance.

The Gold and Schein study revealed that (a) 57% of the physicians follow the common practice of prescribing emergency contraception up to 72 hours after a woman has had unprotected intercourse, (b) 29% prescribed it only for women who seek treatment within 48 hours, (c) 11% used a cutoff of 24 hours, and (d) only 1% reported prescribing this method after 72 hours. Fifty-six percent of nurse practitioners in the current study reported prescribing up to 72 hours, 7.1% within 48 hours, 1.8% within 24 hours, and 35% reported prescribing this method after 72 hours. It is not recommended to prescribe emergency contraception after 72 hours of unprotected intercourse. If emergency

contraception is used after 72 hours and the patient is pregnant, the emergency contraception would not harm the fetus or an established pregnancy. Therefore, emergency contraception is not recommended for use after 72 hours. These findings suggest that nurse practitioners need further education regarding correct prescribing practices of emergency contraception.

Findings in the current study that correlated to the Gold and Schein (1997) study included 58% of nurse practitioners who required a pregnancy test prior to prescribing emergency contraception, 64% of physicians, and 30% of nurse practitioners would prescribe emergency contraception over the telephone compared to 32% of the physicians in the Gold and Schein study. Similar to the Gold and Schein study that reported 25% of physicians required patients to sign a written consent form, 32% of the nurse practitioners in the current study had this requirement. The nurse practitioners (49.1%) in the current study and the physicians (52%) in the Gold and Schein study reported that they would not restrict the number of times they would prescribe emergency contraception to an individual patient. These findings suggest that nurse practitioners and physicians do share similar prescribing practices regardless of educational background.

In contrast to 28% of physicians in the Gold and Schein study, 47.4% of nurse practitioners in the current study reported counseling on the availability of emergency contraception at routine health care visits. Fifty-three percent of nurse practitioners in the current study reported counseling patients on the availability of emergency contraception at family planning visits, whereas only 41% of the physicians in the Gold and Schein study counseled the patients. These findings indicate that nurse practitioners are more open-minded and willing to educate women on all methods of contraception. This may be because nurse practitioners are more thorough in the education they provide their patients versus physicians.

Fifty-six percent of nurse practitioners in the current study reported counseling sexually inexperienced women on emergency contraception compared to only 16% of the physicians in the Gold and Schein (1997) study. Sixty-eight percent of nurse practitioners in the current study reported having written information on emergency contraception available at their practice site versus only 34% of physicians in the Gold and Schein study had written information available. These findings indicate that nurse practitioners believe women need to know about the availability of emergency contraception prior to the need for this method. Health promotion through prevention and

education is a primary focus of the nurse practitioners' role.

Conclusion

The findings of this study indicated that the majority of nurse practitioners in the United States prescribe emergency contraception. However, most nurse practitioners only prescribe this method a few times per year. Nurse practitioners who have not prescribed emergency contraception report reasons such as it is not approved for use by the Food and Drug Administration, fear of teratogenic effects if the patient was already pregnant, inexperience with use, and reservations on moral and religious grounds. Nurse practitioners are more likely than physicians to counsel their patients regarding the availability of emergency contraception. Many nurse practitioners were found to prescribe emergency contraception after 72 hours of unprotected intercourse. Recommendations state that emergency contraception should not be prescribed after 72 hours of unprotected intercourse.

Limitations of the Study

The survey resulted in a small sample size; therefore, generalization of the findings beyond the sample may not be possible. The voluntary convenience

sample may not have adequately represented the characteristics of the population of nurse practitioners. Respondents may have interpreted the questions differently. Finally, the accuracy of self-report is dependent on the participants' willingness to reveal personal issues.

Implications for Nursing

This research study was conducted to determine nurse practitioners' attitudes and management practices regarding emergency contraception. Having knowledge and an understanding of nurse practitioners' attitudes and management practices regarding emergency contraception can help serve to evaluate the educational needs of nurse practitioners. The nurse practitioner will need to keep an open mind regarding women and their personal preferences of contraception methods. Although the nurse practitioner may not agree with the patients' contraceptive choices, it is his or her responsibility to discuss all contraceptive options with the client. The nurse practitioner is responsible for insuring that patients are able to make informed decisions. Findings from this study have implications for the nursing profession in the area of theory, education, practice, and research.

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Nursing theory. The findings of this study supported the findings of previous research (Gold & Schein, 1997) and validated the concepts of Imogene King's Goal Attainment Theory. Through communication the nurse practitioner and the patient set goals, explore means, and agree on the means to achieve goals. The patient must act in the personal system to make a decision to seek the nurse practitioner for a contraceptive method. The patient and the nurse practitioner must act in the interpersonal system to explore means and set goals. Finally, the nurse practitioners' and the patients' decision whether or not to use emergency contraception as a method of contraception are affected by the social system.

The role of the nurse practitioner is to communicate to the patient the contraceptive options available and discuss the pros and cons. Together the nurse practitioner and the patient will set goals and decide if emergency contraception is the best alternative for the patient.

Nursing education. Findings from this study indicate that the majority of nurse practitioners are counseling and prescribing emergency contraception to women. However, nurse practitioners are only prescribing emergency contraception a few times a year. In addition, there are some nurse practitioners who fail to counsel and prescribe emergency contraception to women. The findings from the

current study suggest nurse practitioners have knowledge deficits regarding emergency contraception and its use. Family planning and contraceptive technology must be approached in the academic setting by nurse educators so that graduates will be adequately prepared to communicate this information to women and set goals for implementing a plan with the women.

To increase the utilization of emergency contraception, nurse practitioners need to focus on continuing education classes that keep them abreast of methods of contraception and updates to help women prevent unwanted pregnancies. Nurse practitioners need to educate their patients on all methods of contraception. Continuing education is the key to a successful practice.

Nursing practice. Nurse practitioners in the primary care setting can utilize the findings of this research to gain knowledge regarding emergency contraception. This research reveals that women are open-minded to emergency contraception as a method of contraception. Emergency contraception has been determined as a safe and effective means of preventing unwanted pregnancies. Many women do not know about the availability of this method. Therefore, it is the responsibility of nurse practitioners as primary care providers to educate their patients in their practice regarding this method and to make this option available to

women. Nurse practitioners in this study identified methods used to educate women on emergency contraception and its availability. Therefore, nurse practitioners can use these methods identified as a resource in their own practice.

Nurse practitioners need to keep an open attitude about patients and their contraceptive preferences, keeping an open port to communication with patients. Communication is the key to understanding the needs of women, being able to set goals, and being able to achieve those goals. This study serves to help nurse practitioners to gain an understanding of how other nurse practitioners are practicing in regard to women and emergency contraception. Nurse practitioners must incorporate emergency contraception in their practice by educating and counseling women on its availability. This will allow women the freedom to make informed decisions regarding their contraceptive choices.

Recommendations for Further Study

Based on the findings of this study, several recommendations for further study are made. Those recommendations are as follows:

1. Conduction of a study that implements an educational intervention with female patients of childbearing age regarding emergency contraception.

2. Conduction of a study evaluating the impact of emergency contraception on the contraceptive behaviors of women.

3. Conduction of a study that compares the prescribing practices of nurse practitioners with physicians regarding emergency contraception.

4. Conduction of a qualitative study to ascertain the feelings and beliefs of women regarding emergency contraception.

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APPENDIX A

PERMISSION TO USE TOOL

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Dr. Melanie A. Gold
Children's Hospital of Pittsburgh
3705 5th Ave
Pittsburgh, PA 15213

Dear Dr. Gold,

I am sending you this letter to obtain your signature. Your signature is necessary to verify your permission to adapt your survey, "Adolescent Post-Coital Contraceptive Use: Views of Adolescent Health Care Providers."

You e-mailed me on November 01, 2000 giving me permission to use the survey. If the results of the research project titled, "Emergency Contraception: A National Survey of Attitudes of Nurse Practitioners and Their Management Practices" are published I will acknowledge in writing the adaptation and use of this survey. I am enclosing a copy of the adapted survey for you to review. I would appreciate your input on my adaption of your survey.

Thank you for your time and interest in my research project.

Sincerely,

Rachel D. Kirksey, RT(R), RN, BSN
Student at Mississippi University for Women,
Family Nurse Practitioner Program

Subj: **Re: Emergnecy Contraception Thesis**
Date: 11/1/00 5:17:38 PM Central Standard Time
From: magold+@pitt.edu
To: RVinesRN@aol.com

File: Ecdocsur (31232 bytes)
DL Time (50666 bps): < 1 minute

Rachel,

I couldn't remember if I ever sent this to you or not. I am emailing you to give you permission to use this survey or to adapt it's use for your own research project. I would be happy to look at the newst version of the toll if you want my input. I am permitting you to apat this survey to your own research with the understanding that if you should publish the results of your research, that you acknowledge in writing the adaptation and use of this survey.

Melanie A. Gold, D.O.

RVinesRN@aol.com wrote:

> Dr. Gold,
> As we discussed on the phone that your survey tool implemented in the study
> titled, Emergency Contraception: A National Survey of Adolescent Health
> Experts (1995) has been used in at least two other studies. I thought I had
> found the two journal articles, but I haven't. If you could e-mail me the
> title of the studies that were performed in pediatrics and in New York, plus
> the authors name, I will try obtain the articles.
>
> I am sure you understand the importance of this. I need to be able to speak
> to the validity of the tool. Referencing two other studies that the tool has
> been implemented in will definitely reveal the validity of the tool.
>
> Thank you again for your help. I will be in touch as the study progresses.
> I look forward to receiving a copy of the tool via e-mail. I also would like
> to remind you that when you mail me a copy of the tool with some articles
> that may be useful, I need a letter giving me permission to use and adapt
> your tool for the purpose of my study.
>
> Sincerely,
>
> Rachel Kirksey
> 3559 River Rd
> Mantachie, MS 38855
> (662) 282-7300

---------- Headers ----------
Return-Path: <magold+@pitt.edu>
Received: from rly-yc03.mx.aol.com (rly-yc03.mail.aol.com [172.18.149.35]) by air-yc04.mail.aol.com (v76_r1.23) with ESMTP; Wed, 01 Nov 2000 18:17:37 -0500
Received: from mb1i0.ns.pitt.edu (mb1i0.ns.pitt.edu [136.142.186.35]) by rly-yc03.mx.aol.com (v76_r1.19) with ESMTP; Wed, 01 Nov 2000 18:16:41 -0500
Received: from pitt.edu ("port 3049"@[151.195.71.154])
by pitt.edu (PMDF V5.2-32 #41462)
with ESMTP id <01JW1A26KPKY005ELY@mb1i0.ns.pitt.edu> for RVinesRN@aol.com;
Wed, 1 Nov 2000 18:15:58 EST

APPENDIX B

DEMOGRAPHIC DATA FORM

Demographic Data Form

Place a check (✓) next to the appropriate response or select from the drop down box.

1. Race
   - ❑ a. Caucasian
   - ❑ b. African American
   - ❑ c. Native American
   - ❑ d. Latino/Hispanic/Mexican
   - ❑ e. Other: _____. Please type in race

2. Gender
   - ❑ a. Male
   - ❑ b. Female

3. Religion
   - ❑ a. Protestant
   - ❑ b. Jewish
   - ❑ c. Catholic
   - ❑ d. None/Atheist
   - ❑ e. Other:_____. Please type in religion.

4. Age: _____ years (Type in age)

5. Year of nurse practitioner graduation:_____ (Please type in year)

6. Nurse practitioner specialty
   - ❑ a. Pediatrics
   - ❑ b. Adult
   - ❑ c. Geriatrics
   - ❑ d. Obstetrics/Gynecology
   - ❑ e. Family
   - ❑ f. Other. (Please type in nurse practitioner specialty)

7. What is your practice setting?
   - ❑ a. Academic
   - ❑ b. Primary care clinic
   - ❑ c. Emergency department
   - ❑ d. Local health department clinic
   - ❑ e. Planned parenthood clinics/family planning clinics
   - ❑ f. Other:_____ (Please type in practice setting)

8. Where do you practice?
   - ❑ a. USA
   - ❑ b. Other: _____ (Please type in country)

APPENDIX C

ADOLESCENT POST-COITAL CONTRACEPTIVE USE: VIEWS OF ADOLESCENT HEALTH CARE PROVIDERS (ADAPTED)

Adolescent Post-Coital Contraceptive Use:
Views of Adolescent Health Care Providers
(Adapted)

1. What % of your patients are females?	❑ ≥ 50% ❑ < 50%
2. Have you ever prescribed emergency contraception?	❑ Yes ❑ No ❑ Unsure
3. Do you counsel your female patients on the availability and utilization of emergency contraception?	❑ Yes ❑ No ❑ Unsure
4. Do you think that providing emergency contraceptive pills encourages contraceptive risk-taking behavior?	❑ Yes ❑ No ❑ Unsure
5. Do you think providing emergency contraceptive pills discourages compliance with other contraceptive methods?	❑ Yes ❑ No ❑ Unsure
6. Do you think repeated use of emergency contraceptive pills poses health risks?	❑ Yes ❑ No ❑ Unsure
7. Would you RESTRICT the number of times you would dispense emergency contraceptive pills to an individual patient?	❑ Yes ❑ No ❑ Unsure
8. Would you consider prescribing emergency contraceptive pills for the patient to have on hand PRIOR to an episode of unprotected sexual intercourse?	❑ Yes ❑ No ❑ Unsure
9. Do you think emergency contraceptive pills should be available over-the-counter without a prescription?	❑ Yes ❑ No ❑ Unsure

10. How often do you prescribe emergency contraception?	❑ Never ❑ 1 time a year ❑ 1 time a month ❑ 1 time a week ❑ Other. Please specify: _____
11. What method/methods do you prescribe for emergency contraception? (Check all that apply)	❑ Preven Pack ❑ Plan B ❑ Oral Contraceptive Pills (Please specify most commonly used brands and dose) _____
12. Why do you use this/these regimen(s) chosen above? (Check all that apply)	❑ Cost ❑ Availability of samples or convenience ❑ Familiarity or experience ❑ Other reasons. (Please specify)
13. What is your post-coital time restriction?	❑ > 72 hours ❑ ≤ 72 hours ❑ ≤ 48 hours ❑ ≤ 24 hours
14. Do you require a pregnancy test prior to prescribing emergency contraception?	❑ Yes ❑ No ❑ Unsure
15. Do you prescribe emergency contraception over the telephone?	❑ Yes ❑ No ❑ Unsure

16. Do you require your patients to sign a written informed consent form?	❑ Yes ❑ No ❑ Unsure
17. Do you use the patients' timing of menses to determine prescribing?	❑ Yes ❑ No ❑ Unsure
18. Do you counsel on the availability of emergency contraception at patient visits for routine health care?	❑ Yes ❑ No ❑ Unsure
19. Do you counsel on emergency contraception at patient visits for contraception?	❑ Yes ❑ No ❑ Unsure
20. Do you counsel sexually inexperienced women on emergency contraception?	❑ Yes ❑ No ❑ Unsure
21. Do you have written information on emergency contraception available at your practice site?	❑ Yes ❑ No ❑ Unsure
22. Do you counsel on emergency contraception only on request?	❑ Yes ❑ No ❑ Unsure
23. Do you counsel on emergency contraception in the exam room?	❑ Yes ❑ No ❑ Unsure
24. Do you counsel on emergency contraception in the waiting room (via posters and brochures)?	❑ Yes ❑ No ❑ Unsure

25. Do you have another means for counseling on emergency contraception?	❑ Yes. Please specify: _____ _____ ❑ No ❑ Unsure
26. Do you routinely offer an antiemetic when you prescribe emergency contraception?	❑ Yes ❑ No ❑ Unsure
27. How often do you get a request for emergency contraception?	❑ Less than once a year ❑ A few times a year ❑ Once a month or more ❑ Weekly ❑ Several times a week
28. Do you limit the number of times you dispense emergency contraception?	❑ Yes ❑ No ❑ Unsure
29. Please select each side effect of emergency contraception that you have encountered in your patients. (Check all that apply)	❑ Nausea ❑ Vomiting ❑ Breast tenderness ❑ Menstrual irregularities ❑ Headache ❑ Abdominal cramps ❑ Visual disturbances ❑ Fatigue or lethargy ❑ Dizziness ❑ Mood changes ❑ Failure to prevent pregnancy ❑ Ectopic pregnancy ❑ Have you encountered any others? Please specify: _____ _____ _____

30. Now that RU-486 has been approved by the Food and Drug Administration, would you refer a patient to a physician for RU-486 (mifepristone)?	❑ Yes ❑ No ❑ Unsure
31. Listed are a number of reasons why health care providers do not prescribe emergency contraception. Which of the following reasons are TRUE for you? (Please check all that apply)	❑ Inexperience with use ❑ Reservations on moral or religious grounds ❑ Do not trust the patient's report that she had no other prior episodes of unprotected intercourse during the cycle ❑ Believe that patients would not use other contraceptive methods effectively if emergency contraception were easily available ❑ Patients never request emergency contraception within the appropriate time frame from last unprotected intercourse ❑ Not FDA approved ❑ Emergency contraception is not effective ❑ Fear of teratogenic effect if patient is already pregnant ❑ Any other reasons? Please specify: _____ _____ _____ _____

APPENDIX D

APPROVAL OF MISSISSIPPI UNIVERSITY FOR WOMEN'S COMMITTEE ON USE OF HUMAN SUBJECTS IN EXPERIMENTATION

MISSISSIPPI UNIVERSITY FOR WOMEN
Admitting Men Since 1982

Office of the Vice President for Academic Affairs
Eudora Welty Hall
W-Box 1603
Columbus, MS 39701
(662) 329-7142
(662) 329-7141 Fax
www.muw.edu

March 30, 200

Ms. Rachel D. Kirksey
P. O. Box W-910
Campus

Dear Ms. Kirksey:

I am pleased to inform you that the members of the Committee on Human Subjects in Experimentation have approved your proposed research as submitted with the strong recommendation that you take steps to ensure the confidentiality of any e-mail or internet transmissions. Also, the Committee requires that any reference to the Committee approval be deleted. It is the Committee's position that this has the potential to misrepresent the authority given to the researcher. The Committee requires that the results of any questionnaire or survey be kept under lock and key to ensure confidentiality and that they be kept for a sufficient length of time to protect both participant and researcher.

I wish you much success in your research.

Sincerely,

Vagn K. Hansen, Ph.D.
Vice President
for Academic Affairs

VH:wr

cc: Mr. Jim Davidson
Dr. Melinda Rush
Graduate Nursing Program

APPENDIX E

LETTER OF INFORMATION

Letter of Information

Dear Survey Participant,

My name is Rachel Kirksey. I am a registered nurse and a graduate student in nursing at Mississippi University for Women. The purpose of my research is to examine the attitudes of nurse practitioners nationally regarding their prescribing and counseling practices of emergency contraception.

If you are a nurse practitioner certified and practicing in the United States and caring for women of childbearing age, I am inviting you to participate in this study. Your participation in this study will be greatly appreciated.

If participating, it will be important to read the following information. This study involves a consent form, a questionnaire, and a demographic data form.

Informed Consent

Your participation in this study will be on a voluntary basis. There is no immediate benefit to you for your participation; however, I believe this study will eventually impact the health care profession in a positive way by providing information that will help guide educational programs regarding this topic.

The time required to participate in this study will be approximately 15 minutes to complete the Kirksey Post-Coital Contraception Questionnaire and approximately 5 minutes to complete the demographic data form.

Risk

During e-mail transmission of your responses via the Internet, privacy cannot be guaranteed. Upon receiving the responses the researcher can maintain confidentiality by deleting the e-mail addresses. No one will have access to the researcher's e-mail. There are no identified risks such as physical, mental, or emotional injury to you for participating in this study. You are free to withdraw from this study at any time.

Confidentiality

Upon receiving your response, the researcher will delete your e-mail address and print only the response. Upon successful printing of your response, the researcher will assign a participant number to your response. Your e-mail response will be permanently deleted from the researcher's e-mail box. Confidentiality will be maintained as your name will not be used. After final analysis the printed responses will be destroyed.

Thank you for your time and assistance in my educational pursuit. This study has been reviewed by the Committee on the Use of Human Subjects in Experimentation at Mississippi University for Women, and it has been determined that this study meets the ethical obligations required by federal law and university standards.

If you have any questions, concerns, or reports regarding this study or the results, please contact me via e-mail (RvinesRn@aol.com) or telephone (662) 282-7300.

Sincerely,

Rachel D. Kirksey

APPENDIX F

RAW DATA RESULTS

Participants Responses (by Percentages) to the Adapted Adolescent Post-Coital Contraceptive Use: Views of Adolescent Health Care Providers Survey

Survey item	f[a]	%[b]
1. What % of your patients are female?		
≥ 50%	46	80.0
50%	11	20.0
2. Have you ever prescribed emergency contraception?		
Yes	47	82.0
No	10	18.0
Unsure	0	0.0
3. Do you counsel your female patients on the availability and utilization of emergency contraception?		
Yes	49	86.0
No	8	14.0
Unsure	0	0.0
4. Do you think that providing emergency contraceptive pills encourages contraceptive risk-taking behaviors?		
Yes	5	8.8
No	49	86.0
Unsure	3	5.2
5. Do you think providing emergency contraceptive pills discourages compliance with other contraceptive barriers?		
Yes	6	10.5
No	47	82.5
Unsure	4	7.0

(table continues)

Survey item	f[a]	%[b]
6. Do you think repeated use of emergency contraceptive pills poses health risks?		
Yes	15	26.3
No	36	63.2
Unsure	6	10.5
7. Would you RESTRICT the number of times you would dispense emergency contraceptive pills to an individual patient?		
Yes	16	28.1
No	28	49.1
Unsure	13	22.8
8. Would you consider prescribing emergency contraceptive pills for the patient to have on hand PRIOR to an episode of unprotected sexual intercourse?		
Yes	41	71.9
No	14	24.6
Unsure	2	3.5
9. Do you think emergency contraceptive pills should be available over-the-counter without a prescription?		
Yes	32	56.1
No	18	31.6
Unsure	7	12.3
10. How often do you prescribe emergency contraception?		
Never	8	14.0
1 time a year	12	21.0
1 time a month	18	31.6
1 time per week	6	10.5
3 to 6 times per week	6	10.5
4 to 6 times per year	7	12.4

Survey item	f[a]	%[b]
11. What method/methods do you prescribe for emergency contraception?		
Preven Pack	18	31.6
Plan B	26	45.6
Oral Contraceptives	28	49.1
12. Why do you use these regimen(s) chosen above?		
Cost	16	28.1
Availability of samples or convenience	28	49.1
Other reasons	22	38.6
Plan B lower incidence side effects	8	14.0
Plan B better effectiveness	3	5.3
Pharmacy stocks or not	3	5.3
Easy to understand instructions on package/inserts	3	5.3
On NP Formulary (Plan B)	2	3.5
13. What is your post-coital time restriction?		
> 72 hours	20	35.0
≤ 72 hours	32	56.1
≤ 48 hours	4	7.1
≤ 24 hours	1	1.8
14. Do you require a pregnancy test prior to prescribing emergency contraception?		
Yes	33	57.9
No	21	36.8
Unsure	3	5.3
15. Do you prescribe emergency contraception over the telephone?		
Yes	17	29.8
No	38	66.7
Unsure	2	3.5

Survey item	f[a]	%[b]
16. Do you require your patients to sign a written informed consent form?		
Yes	18	31.6
No	37	64.9
Unsure	2	3.5
17. Do you use the patients' timing of menses to determine prescribing?		
Yes	10	17.5
No	44	77.2
Unsure	3	3.5
18. Do you counsel on the availability of emergency contraception at patient visits for routine health care?		
Yes	27	47.4
No	28	49.1
Unsure	2	3.5
19. Do you counsel on emergency contraception at patient visits for contraception?		
Yes	30	52.6
No	26	45.6
Unsure	1	1.8
20. Do you counsel sexually inexperienced women on emergency contraception?		
Yes	32	56.1
No	22	38.6
Unsure	3	5.3
21. Do you have written information on emergency contraception available at your practice site?		
Yes	39	68.4
No	17	29.8
Unsure	1	1.8

urvey item	f[a]	%[b]
2. Do you counsel on emergency contraception only on request?		
Yes	25	43.9
No	32	56.1
Unsure	0	0.0
3. Do you counsel on emergency contraception in the exam room?		
Yes	54	94.7
No	3	5.3
Unsure	0	0.0
4. Do you counsel on emergency contraception in the waiting room (via posters and brochures)?		
Yes	19	33.3
No	38	66.7
Unsure	0	0.0
5. Do you have another means for counseling on emergency contraception?		
Yes	18	31.6
No	39	68.4
Unsure	0	0.0
6. Do you routinely offer an antiemetic when you prescribe emergency contraception?		
Yes	25	43.9
No	28	49.1
Unsure	4	7.0
7. How often do you get a request for emergency contraception?		
Less than once per year	16	28.1
A few times per year	16	28.1
Once a month or more	18	31.6
Weekly	3	5.3
Several times per week	4	7.0

Survey item	f[a]	%[b]
28. Do you limit the number of times you dispense emergency contraception?		
Yes	9	15.8
No	42	73.7
Unsure	6	10.5
29. Please select each side effect of emergency contraception that you have encountered in your patients.		
Nausea	39	68.4
Vomiting	23	40.4
Breast tenderness	2	3.5
Menstrual irregularities	17	29.8
Headache	2	3.5
Abdominal cramps	4	7.0
Visual disturbances	1	1.8
Fatigue and lethargy	3	5.3
Dizziness	5	8.8
Mood changes	1	1.8
Failure to prevent pregnancy	4	7.0
Ectopic pregnancy	0	0.0
Other side effects	0	0.0
30. Now that RU-486 has been approved by the Food and Drug Administration, would you refer a patient to a physician for RU-586 (mifepristone)?		
Yes	38	65.0
No	10	17.5
Unsure	10	17.5

[a]N = 57.

[b]Percentages were rounded to the nearest tenth place. Not all participants answered all questions.

rvey item	f[a]	%[b]
. Do you limit the number of times you dispense emergency contraception?		
Yes	9	15.8
No	42	73.7
Unsure	6	10.5
. Please select each side effect of emergency contraception that you have encountered in your patients.		
Nausea	39	68.4
Vomiting	23	40.4
Breast tenderness	2	3.5
Menstrual irregularities	17	29.8
Headache	2	3.5
Abdominal cramps	4	7.0
Visual disturbances	1	1.8
Fatigue and lethargy	3	5.3
Dizziness	5	8.8
Mood changes	1	1.8
Failure to prevent pregnancy	4	7.0
Ectopic pregnancy	0	0.0
Other side effects	0	0.0
0. Now that RU-486 has been approved by the Food and Drug Administration, would you refer a patient to a physician for RU-586 (mifepristone)?		
Yes	38	65.0
No	10	17.5
Unsure	10	17.5

N = 57.

Percentages were rounded to the nearest tenth place. Not all participants answered all questions.