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**Development of Clinical Guidelines:  
“Teaching Guidelines for the Use of Oral Contraceptives by Adolescents”**

**BY  
SANDY MAY**

**A Practicum Project Report  
Submitted to the Faculty of Graduate Studies  
In partial fulfillment of the requirements  
for the Degree of**

**MASTER OF NURSING**

**Faculty of Nursing  
University of Manitoba  
Winnipeg, Manitoba**

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**Development of Clinical Guidelines:**  
**"Teaching Guidelines for the Use of Oral Contraceptives by Adolescents"**

**BY**

**Sandy May**

**A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University  
of Manitoba in partial fulfillment of the requirements of the degree**

**of**

**Master of Nursing**

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## **DEDICATION**

**To my family:**

**My husband Doug and my daughters Vanessa, Angela and Julie  
for their patience, understanding and encouragement.**

## **ACKNOWLEDGMENTS**

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## ABSTRACT

There is currently a move towards evidence-based practice in all areas of health care. The development of clinical guidelines for use in practice is seen as one way of ensuring that the practice of clinicians is based on documented evidence. This practicum project describes a clinical situation where there are no current guidelines in use, specifically what and how to teach adolescents when they first start using oral contraceptives. A detailed review of the literature in the areas of clinical guideline development, the role of the nurse practitioner, health care of adolescents, and oral contraceptives was carried out. Clinical teaching guidelines were developed from a synthesis of the literature. A client version of the guidelines in the form of a handout was also developed. The guidelines were then presented to health professionals at three clinical practice sites. After each presentation, participants were asked to provide feedback on the guidelines. The results were very positive, with many participants commenting that they found the guidelines to be relevant, informative, and useful. An evaluation framework was developed, but was not actually carried out as part of this practicum project due to time restraints. This framework involves a non-experimental pretest-posttest design that measures a shift from baseline (Fitz-Gibbon and Morris, 1987). The purpose of the evaluation project would be to test whether use of the guidelines increases the knowledge base and the satisfaction level of the health professionals using them and to gather feedback from the health professionals regarding the use and effectiveness of the guidelines in order to make any necessary revisions.



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## Chapter 1

### Statement of the Problem

#### Introduction

Today's health care system is shifting to decision making on the basis of evidence. No longer is it acceptable to base decisions on opinion, past practice, and precedent. Instead, in an effort to improve effectiveness and lower costs, science, research, and the best available evidence is being used to guide clinical decision making. Evidence that may be used is comprised of research, clinical expertise, patient preferences, and other available sources, such as performance data, peer review reports, program evaluations, consensus recommendations of local and national experts, pathophysiological data, and cost-effectiveness analysis (Krause, 2000).

The development of clinical guidelines for use in practice is seen as one way of ensuring that the practice of clinicians is based on documented evidence. The Institute of Medicine defines clinical practice guidelines as: "Systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances" (Callender, 1999, p. 106). The term evidence based indicates that the formulation of the guideline is based on a systematic review of the health care literature and current practice (WRHA, 2000).

Clinical practice guidelines are needed in all areas of health care, but they take time and resources to develop, disseminate, and implement. One example of a topic that is in need of concentrated effort on the part of health care practitioners is that of adolescent sexuality. The problem of unwanted adolescent pregnancy is huge. Over 60% of Canadian youth under 19 years

of age have had sexual intercourse and Canada's teen pregnancy rates are higher than many other developed countries (Health Canada, 1999). The social and economic consequences of adolescent births are as important as the health implications. Previous studies suggest that adolescent motherhood may result in a loss of educational and occupational opportunities, and increase the likelihood of diminished socio-economic status (Health Canada, 1999).

The nursing profession has embraced the concept of evidence based practice over the last few years. New roles are also currently evolving for nurses in Canada, such as in the field of Advanced Practice Nursing. With their increased skills and knowledge, advance practice nurses are in an excellent position to further the development of evidence based practice. For example, nurse practitioners, acting in advanced practice nursing roles in primary care settings, have opportunities to affect the organizational change process using clinical expertise, research competencies, and leadership and change-agent skills.

This practicum project describes a clinical situation where there are no current guidelines in use, specifically what and how to teach adolescents when they first start taking oral contraceptives. A detailed review of the literature in the areas of clinical guideline development, the role of the nurse practitioner, health care of adolescents, and oral contraceptives was carried out. Clinical guidelines were developed from a synthesis of the literature. The guidelines were then disseminated in various clinical practice sites in the form of presentations to staff. An evaluation framework was developed, but was not actually carried out as part of this practicum project due to time restraints.

## Background

There is currently a move towards evidence-based practice in all health fields, including medicine and nursing. Many health care organizations, including all the Regional Health Authorities (RHAs) in Manitoba, are currently undergoing restructuring in order to provide more cost efficient and effective care to clients. One of the changes involves the trend towards professional practice that is based on documented evidence.

*Situation in Central Region* The Central RHA covers a large geographical area, which spans from Headingly in the east to Sidney in the west and from Langruth and St. Ambrose to the north down to the U S border to the south. There are currently 21 public health nurses (PHNs) working in Central Region. The communities they work in vary from larger centers like Portage la Prairie, Morden, Winkler, and Morris, to small towns and villages, Hutterite Colonies, and rural farms. Much of the current practice of public health nurses is based on old information from outdated manuals or on general consensus, expert opinion, and clinical experience. The recent accreditation of the Central RHA has provided an added incentive to move towards evidence based practice. Along with all the other departments in the RHA, Public Health has been examining closely what PHNs do, how and why they do it, and how it could be done better. Standards, protocols, and guidelines are being reviewed, updated, and developed in all the program areas. This is no easy undertaking and it will require a tremendous amount of effort and time from all the staff.

The PHNs at the Portage Health Unit were consulted for their opinions regarding priorities in areas that need guideline development. The decision was that teaching guidelines for the use of oral contraceptives by adolescents were needed. Presently, in Central Region,

PHNs are able to dispense contraceptive products at no cost to clients when a financial need is demonstrated. By far, most of the clients are single young women who are in need of sexuality and reproductive health counseling, and pregnancy and disease prevention strategies. When a client presents with the need for contraception, she is counseled regarding the different methods available and what would be best in her situation. If she decides she wants to use oral contraceptives (OCs), she must first be examined by a physician and obtain a prescription. The PHN can then order and dispense these to the client.

There is much information that needs to be given to the client when she first starts taking OCs, but presently there are no guidelines that outline this. Some of the Central Region PHNs currently use an old consent form for the birth control pill that was developed in the 1980's by Manitoba Health. They felt that this was inadequate and requested that teaching guidelines be developed that they could use when dispensing OCs. Guidelines would help to ensure consistency in the way each PHN approaches the situation. Making the guidelines evidence based would also help to ensure that current reliable and relevant information was provided and that no relevant information would be left out.

*Situation in the Primary Care Setting* During clinical practice at various primary care settings in Winnipeg, a similar situation was noted. In these settings, adolescent girls are seen frequently for the purpose of contraception counseling. The clinic physicians and primary care nurses have various roles in assessing the need for contraception, prescribing the appropriate method, and providing teaching and counseling for the adolescent.

Within both the public health and the primary care settings, there seems to be inconsistency in the amount and quality of information given to adolescents when they first start

taking oral contraceptives. Factors such as the health professional's knowledge base, time constraints, and resources available contribute to the inconsistency in the information given to adolescents. There is also very little information available that is appropriate to give as a handout for adolescents to take home. There is an information sheet from Manitoba Health on oral contraceptives and various pamphlets and booklets put out by pharmaceutical companies, but these are all very general, are geared to all women, and do not contain enough relevant information.

A provincial committee is currently developing guidelines for all forms of contraception, including oral contraceptives. Development is in the early stages and is expected to take at least another two years before release of the guidelines (Renata Cook, personal communication, November, 2000). This practicum project, therefore, may be able to assist this committee by providing information that could be used in their own guideline development process.

#### Purpose of the Practicum Project

The main goal for teaching adolescents about the proper use of oral contraceptives is ultimately to reduce the rate of unwanted pregnancy. The aim is to promote more consistent use of OCs and increase the length of time adolescents use contraceptives effectively.

The main purpose of this practicum project was to create teaching guidelines for health professionals to use when counseling adolescents about the use of OCs. The purpose of these guidelines is to outline the important information that needs to be included when teaching adolescents about the use of OCs for prevention of pregnancy. The main objectives for the implementation of the guidelines, therefore, are related to helping health professionals do their job better. These objectives include: to increase the knowledge base of professionals regarding



the use of OCs by adolescents, to ensure that consistent and current information is given to all clients, and to increase the satisfaction of the professionals using the guidelines with the teaching method that is used.

Another purpose of this practicum project was to introduce the guidelines in various clinical settings in order to educate the health professionals and obtain their feedback. An information session was held at three settings, where the guidelines were formally presented. The health professionals attending the presentations were asked to give an informal evaluation of the guidelines immediately after the session.

The next step in the process of guideline development is implementation and evaluation after a period of time when the guidelines are used in practice. While this step is beyond the scope of this practicum project, an evaluation framework was developed and is described in Chapter 3. The purpose of this formal evaluation would be to gather feedback from the professionals regarding the use and effectiveness of the teaching guidelines in order to make any necessary revisions. Another purpose would be to test whether use of the guidelines increased the knowledge base and satisfaction level of the health professionals using them. A study that measures the effect of using the guidelines on adolescent behavior is also described.

## Chapter 2

### Review of the Literature

#### Development of Clinical Practice Guidelines

Providing the highest quality of care possible to clients is the top priority for health care practitioners and organizations. Evidence-based clinical practice tools, such as guidelines, protocols and care maps, have evolved as the foundation to support this goal (WRHA, 2000). Clinical practice guidelines (CPGs) provide information about the care for particular client conditions or situations, including options, and make recommendations based on evidence (McClarey, 1997). CPGs aim to enhance the quality, appropriateness, and effectiveness of health care by using the best available scientific evidence and expert opinion. They can also be used to reduce inappropriate variations in practice and to provide a mechanism by which health care practitioners can be made accountable for clinical activities (Thomas, 1999). Some of the other advantages to using CPGs that have been described in the literature include decreasing health care costs, increasing job satisfaction for health care practitioners, and empowerment of all health care team members, including clients (WRHA, 2000).

Guideline Development The first step in the development of a CPG is to define a clinical topic or situation where practice is being questioned and to identify the major issues the guideline is to address. Appropriate topics include those that involve high volume, quality issues, and financial impact (Benton, 1999). Current processes are then documented, compared, and contrasted to get a comprehensive picture of current practice.

Thomas (1999) describes four stages to guideline development. First, a detailed literature search is done to identify and document evidence from research studies about the

appropriateness and effectiveness of various clinical strategies. Expert reviews and opinions can also be included. Second, guideline construction takes place using the evidence obtained. Feutz-Harder (1997) describes four ways in which guidelines can be formatted: a clinical practice guideline which includes specific statements and recommendations, summary of evidence, and pertinent references and is intended for use by health care practitioners as a reference for clinical decision making; a quick reference guide for clinicians, which is an abbreviated version or summary of a CPG for day to day use by health care practitioners; a consumer version for clients or care givers that presents relevant information in easy to understand terms; and a guideline technical report. The third stage in guideline development involves testing the guideline by asking professionals not involved in the process of development to review it for clarity, internal consistency, and acceptability. It can then be tested in selected settings to see whether it is feasible for use in routine practice. In the fourth stage, the guideline should be reviewed after a specified time period and modified to take into account new knowledge and feedback from users.

Guidelines need to have most of the following attributes and characteristics in order to be effective: validity, cost-effectiveness, reproducibility, reliability, representative development, clinical applicability and flexibility, clarity, meticulous documentation, and scheduled review (Thomas, 1999).

Dissemination of Guidelines Dissemination is the method by which guidelines are made available to potential users. Strategies include: publication in professional journals or direct mailing, which are least successful, but are low cost and reproducible; continuing professional development; and educational interventions, such as workshops, inservices, and lectures. The

specifically targeted interventions are more likely to result in behavior change (Thomas, 1999). Dissemination alone, however, without appropriate implementation strategies is unlikely to influence behavior substantially.

*Implementation Strategies* The success of clinical practice guidelines depends not only on their proper development, but also on their widespread application in routine practice. Implementation strategies try to ensure that users subsequently act upon the recommendations. Messages must be tailored to the needs of the target audience and efforts must be made to overcome barriers to behavior change (Thomas, 1999).

Effective communication strategies are required for implementation. The goal of communicating is to inform all potential users of the guideline that a new CGP exists, what it entails, and how it affects their daily work or role. Tactics can include staff meetings, educational sessions, information packages, poster presentations, memos, and newsletter articles (WRHA, 2000). Strategies that provide accessible reminders of the guideline include: client specific prompts at the time of consultation, which have the most powerful effect, and general feedback and reminders, such as audits (Thomas, 1999).

According to Mittman et al (1992), modifying health practitioners' behavior to conform more closely to practice guidelines and other recommended practices has proved to be a difficult task. Barriers to behavior change need to be considered for effective implementation to take place. Barriers to guideline use include attitudinal factors such as resistance to change, custom and habit, and acceptance of guidelines and organizational barriers such as lack of time and resources due to staff workload.

A range of factors can influence the successful uptake of guidelines, the most critical

being the process followed in the development, dissemination, and implementation. The highest probability that guidelines will be used effectively occurs when there is greater local ownership of the development process, there are specific educational interventions for dissemination, and there are client specific reminders for implementation (Benton, 1999).

### The Role of the Nurse Practitioner

Hamric (1996) describes advanced nursing practice as being defined by a set of core competencies, which refer to areas of skilled performance. These core competencies include: expert clinical practice; expert guidance and coaching of patients, families, and other care providers (education); consultation; research skills including utilization, conduct and evaluation; clinical and professional leadership; collaboration; change agent skills; and ethical decision-making skills.

Research Utilization The research role component for Nurse Practitioners (NPs) has been one that consists more of research utilization rather than the conduct of research. Being a clinical expert makes it appropriate for the NP to have a major role in the research utilization process, including identifying clinical problems and developing and implementing research-based protocols, guidelines, or standards to alleviate problems or minimize their effects (Krause, 2000). Activities for interpreting and using research involve incorporating relevant research findings appropriately into the NP's own practice and assisting others to incorporate research into individual or unit practice.

Research utilization is defined as the transfer of scientific research-based knowledge into clinical practice. It is problem focused and directed toward improvement in the quality and effectiveness of the care provided to clients. Krause (2000) describes seven steps in the research

utilization process: systematically identifying clinical problems; identifying and assessing research-based knowledge to solve the identified problem; using the research base to design a practice innovation; conducting a clinical trial and evaluating the effectiveness of the innovation; deciding whether to adopt, alter, or reject the innovation; developing a means to diffuse the practice innovation to beyond the trial unit; and developing mechanisms to maintain the innovation over time.

Education Teaching and counseling competencies are critical elements of NP practice, as these activities become the basis for health promotion and disease prevention. These competencies are demonstrated by the NP's ability to capture a client's readiness to learn, provide an environment that promotes learning, interact with clients in ways that are non-judgmental and culturally sensitive, and facilitate a sense of partnership with the client in the primary care setting (Hanna, 1996). Activities include explanations of a client's condition, treatment choices, and rationale for procedures and discussions of relevant lifestyle adjustments and other measures for health promotion.

Research has shown that effective client education is associated with improved outcomes in diverse populations. Studies have found that most teaching strategies, such as booklets, programmed instruction, modeling, lecture, and discussion, are effective in improving outcomes in cognitive (knowledge), behavioral, physiological, and psycho-social areas. Client education promotes adherence to therapies and self-care and is a means of improving effectiveness and efficiency of quality outcomes (Clarke and Spross, 1996).

The education role of the NP can also be applied to student and staff education. In this role, the NP acts as a leader and a change agent.

**Leadership** Leadership is the ability to encourage, empower, and motivate others to desire the accomplishment of a desired goal (Malone, 1996). It requires vision, risk-taking, collaboration, use and empowerment of followers, and mentoring. Communication, as a key task of a leader, is accomplished through clarification, repetition, and inviting others to adapt and design elements of the goal. As advanced practice nurses, NPs are expected to provide the leadership necessary, both to effect change in clinical and organizational environments and to model these processes and skills for nurses in basic practice (Norton and Grady, 1996).

**Change Agent** In today's health care environment, change, not stability, characterizes the daily work life of health professionals. Health care practitioners must contend with clients' changing conditions, new protocols and policies, new technology, and rampant changes in the health care system itself (Norton and Grady, 1996). They must develop a working comfort with change in order to respond flexibly and plan effectively in ever-changing environments.

The NP, as a change agent, provides new ideas and guidance and energizes and encourages others in an effort to facilitate change by influencing norms, values, and skills. Success depends on good communication skills, effective consulting and collaborating styles, and clinical expertise (Strunk, 1995). These qualities are a source of power to the change agent and allow the NP to act as a role model to staff change efforts based on need, research, and environment.

Health care evolution and reform are moving at unprecedented speed with a mandate for change. As leaders and change agents, NPs can use their research and education skills to develop, implement, and evaluate innovations such as clinical practice guidelines.

## Health Care of Adolescents

*Adolescent Developmental Stages* Adolescence has long been considered a critical period in human development. Murray and Zentner (2001, p. 525) define adolescence as "...the period in life that begins with puberty and extends for eight to ten years or longer, until the person is physically and psychologically mature, ready to assume adult responsibilities and be self-sufficient because of changes in intellect, attitudes, and interests." Murray and Zentner (2001) describe the various stages of adolescence as follows:

*Early adolescence* begins with puberty and lasts for several years, usually between ages 11 - 14 in females. This is a period of rapid growth, when adolescents focus attention on self and on the task of becoming comfortable with body changes and appearance. During this time, they try to separate from their parents. Conformity to and acceptance of peer-group standards and peer friendships gain importance. A dependency-independency struggle may occur, where there is less involvement in family activities, criticism of the parents, and rebellion against parental and other adult discipline and authority. The peer group usually consists of same sex friends, but there is increasing interest in the opposite sex. During this stage, a shift in cognitive styles begins, where adolescents move from concrete to formal operations, developing the ability to think abstractly (Tobias and Ricer, 1998). In early adolescence, concrete thinking still predominates, with magical thinking and a rich fantasy life. At this level, adolescents lack the ability to understand consequences of high risk behavior and have difficulty understanding cause and effect.

*Middle adolescence* begins when the majority of physical growth is completed, usually between the ages 14 - 16 in females. The major tasks of this stage are achievement of ego



identity, attainment of greater independence, interest in the future and career planning, and establishment of a sexual relationship. Peer group allegiance is manifested by clothing, foods and other fads, preferred music, and common jargon. Experimentation with adult-like behavior and risk taking is common in an attempt to prove self to peers. Sexual experimentation often begins now (or earlier) as a result of social exploration and physical maturation. Changes in cognitive functioning includes moving to more abstract thinking and the ability to envision future outcomes of behavior. The rate of acquisition of these skills is highly variable and, even when adolescents have reached the stage of formal operations, they may revert to a concrete operational stage during times of stress.

*Late adolescence* may occur from approximately ages 18 - 25 years. By now, adolescents have usually finished rebellious behavior, have formed their views, have established a stable sense of self, and question relationships to existing social, vocational, and emotional roles and lifestyles. Their value system is being clarified and issues of philosophy, religion, life and death, and ethical decisions are being analyzed. They develop adult-like friendship with their parents and participate more in individual dating, with fewer group activities with friends. It is at this stage that dyadic sexual relationships develop.

*Adolescent Sexuality* Much has been written about adolescent sexuality. During youth and early adulthood, decisions about sexual activity and reproduction become very important. There is an increase in sexual interest at around puberty, which continues through the teen years. Some of the factors associated with this increased interest in sexuality include bodily changes and an awareness of them, rises in levels of sex hormones, and increased cultural emphasis on sex and rehearsal for adult gender roles (Hyde et al, 2001). A major developmental task of

adolescence is learning how to manage physical and emotional intimacy in relationships with others. Young people are curious about sex and sexual intimacy. They may have neither the readiness or desire to engage in sexual activity, but at the same time, may not have the decision-making skills and ego strength to behave counter to the peer group in order to abstain (Murray and Zentner, 2001).

Another powerful influence on teens is mass media. In a survey of Canadian Youth ages 11 -12, about one quarter named television or print media as their main source of information about sexuality (Hyde et al, 2001). These sources deal very explicitly with sexual themes, but consequences such as pregnancy or STIs are rarely discussed or shown and very few, or no, safe sex messages are given. Mass media portrayals of sexual relationships are, in general, unrealistic, with some of the long-term effects on adolescents being more permissive attitudes towards premarital sex and increased likelihood to engage in it.

Adolescents are not only having more sex, but they are engaging in first intercourse at younger ages compared to Canadians 30 years ago (Hyde et al, 2001). The proportion of adolescent girls who reported having engaged in at least one instance of intercourse rose from 28% in 1971 to as high as 52% in 1988 (Elder et al, 1994). This increase in premarital sex reflects two long-term trends: the age of menarche has been falling, to a present average age of 12.7 years and the age of first marriage has been rising. There has been a lengthening of the time between biological readiness and marriage, with the gap presently being 12 - 14 years (Hyde et al, 2001). The motives young people have for engaging in sexual activity include expressing love or affection for the partner, experiencing physical arousal or desire, wanting to please the partner, feeling pressure from peers, wanting physical pleasure, and curiosity. Girls are more

likely to mention love and affection and boys are more likely to mention physical pleasure (Hyde et al, 2001).

Studies indicate that most adolescents engage in sexual behavior that places them at risk for pregnancy, sexually transmitted infections (STIs), and emotional upsets (Elder, et al, 1994). Education and contraceptive services have not kept up with the changing sexual attitudes and behaviors of adolescents. Consequently, contraceptive use is not reliable among teens. Some of the reasons that adolescents don't use contraceptives include: misconceptions or ignorance about them, inability to secure appropriate contraceptives, inability to plan ahead for their actions, belief that using contraceptives labels them as promiscuous, and rebelliousness (Murray and Zentner, 2001). The Canadian Youth and AIDS Study found that only 15% of University students report consistently using a condom. Consistent condom use is also rare among high school students (Hyde et al, 2001). Condoms are used most frequently at the beginning of relationships or in casual encounters. Adolescents are likely to stop using condoms as they get to know a partner better. Most teens see themselves at low risk for contracting STIs, including HIV infection.

Teen Pregnancy In developed nations, the rate of teenage pregnancy has been high for decades. In the U.S., there are one million teen pregnancies every year (Elder et al, 1994). In Canada, there are about 46,800 teen pregnancies annually, which represents 4% of all adolescent girls (Hyde et al, 2001). The Manitoba teen pregnancy rate of 63.2 per 1000 females ages 15 - 19 years is substantially higher than the Canadian rate of 40.2 for 1994 (Manitoba Centre for Health Policy and Evaluation, 2001). Teen pregnancy rates in Manitoba have also been found to be highly correlated with income, with the highest rates for females in the lowest income group.

Approximately 34% of teen pregnancies are terminated by abortion, 60% result in live births, and 5% end in miscarriage (Hyde et al, 2001). The great majority of unwanted teen pregnancies are the result of failure to use contraceptives responsibly.

Adolescent girls who become pregnant face traumatic decisions regarding abortion, adoption, or the arduous task of raising a child in the absence of life experience, food, shelter, and general education for the child or the mother (Elder et al, 1994). Various adverse maternal and infant effects of teen pregnancy have been documented in the literature, including biological and social effects. Teens typically have delayed entry into, and lower rates of, prenatal care. Tobacco, alcohol, and other substance abuse is reported to be higher among pregnant adolescents, and a relatively higher proportion of teens report physical and sexual abuse during pregnancy. Compared with mothers 20 - 24 years of age, mothers age 17 years or less have an increased risk for delivering babies who are preterm or growth retarded. Other adverse outcomes associated with teen pregnancy include preeclampsia, anemia, urinary tract infections, and post-partum hemorrhage (Health Canada, 2000).

With unwanted teen pregnancy, the adolescent mothers, their babies, and society suffer by paying for the compromised welfare of both the mother and baby for life. Society pays huge expenses in public health, medical, and social services to pregnant adolescents, their babies, and their families (Elder et al, 1994).

*Health Education - Counseling Adolescents* In order to effectively counsel adolescents on issues surrounding sexuality, it is crucial that health care providers understand not only the physical changes adolescents experience, but also the psychological developmental tasks that face them as they transition from childhood to adulthood. These include emancipation from the

family of origin, acquisition of skills for future economic independence, development of a mature sexual self-concept, and achievement of a realistic and positive self image (Tobias and Ricer, 1998). Each adolescent will go through these physical and psychosocial changes at a different rate, so it is imperative for health care providers to assess the level of developmental and cognitive abilities of each adolescent and to tailor contraceptive counseling to individual needs (Moriarty, 1997).

The Canadian Task Force on the Periodic Health Exam (1994) recommends that all health care providers who see adolescents should assess whether those who are sexually active are practicing appropriate contraception. Clinicians should involve adolescents and, where appropriate, their parents, in early, open discussion of sexual development and effective methods to prevent unintended pregnancy and STIs. Sexually abstinent adolescents should be encouraged to remain abstinent. Oral contraceptives (OCs) combined with condoms are the first choice for adolescents who do not wish to be sexually abstinent. The College of Physicians and Surgeons of Manitoba (2001) Guideline on Prescribing Contraceptives to Minors states that, although prescribing contraceptive drugs to minors without consent of the guardian is technically proceeding without legal consent, it is unlikely that the prescriber could be successfully attacked before the courts or an inquiry. In these cases, the OCs would be medically desirable and the prescriber would be acting in the best interest of the adolescent.

When an adolescent requests birth control, many issues need to be addressed. Counseling regarding sexuality, relationships, safety and risk taking behaviors need to be considered. She will need information on all birth control methods in order to make a decision on what is best for her. If choosing oral contraceptives, the proper formulation of OC needs to be prescribed by

a qualified practitioner. Clinical breast and pelvic examinations are commonly accepted practices prior to the provision of hormonal contraception. However, a recent study has found that OCs can safely be provided based on careful review of medical history and blood pressure measurements, with no further evaluation necessary for most women (Stewart et al, 2001).

In addition, health professionals who are counseling adolescents need to develop communication styles and relationship building skills that will enhance the development of trust between the adolescent and the health professional. Studies have shown that adolescent compliance is determined in part by the relationship established with health care providers (Canadian Task Force, 1994). Factors influencing compliance include: accessible clinic hours, positive attitudes in the reception area, time spent waiting for the health care provider, care taken with the examination, assurances of confidentiality, and financial resources.

It is important to counsel adolescents in a safe, non-threatening environment through open, honest and non-judgmental communication, with assurance of confidentiality. Adolescents are looking for adults who can be admired, trusted, and leveled with and who genuinely care. They want honest feedback as they struggle with decisions. Teens need the opportunity to identify what they consider to be important problems and a chance to discuss their feelings, attitudes and ideas and to obtain factual information and guidance with effective solutions (Murray and Zentner, 2001). The promotion of healthy and responsible sexual decision-making is one of the goals of counseling adolescents about contraception. This requires effective dialogue, skillful history taking, careful listening, and repeated simple messages that contain essential information (AAP, 1999).

When teaching and counseling adolescents about contraception, it is important to review

female and male anatomy and physiology and dispel any myths or misconceptions they may have. In addition, it is also important to review all contraceptive options with both oral and written instructions and use resources such as models, illustrations, and handouts. Contraceptive choices for adolescents include continuous abstinence, Depo-Provera, condoms and foam, and oral contraceptives. Norplant, the diaphragm, and the cervical cap may be considered, but are generally not appropriate for this age group. Methods that are not usually recommended for adolescents include sterilization, IUD, withdrawal, and periodic abstinence or fertility awareness methods (Planned Parenthood, 2001). Adolescent compliance with OC use may be enhanced by appropriate education and problem-solving techniques which include careful instruction regarding use of OCs, anticipatory guidance about side effects and their management, and frequent follow-up and monitoring (AAP, 1999). Adolescents who lack information about contraceptives and their correct use can scarcely use them effectively. They need accurate, relevant, and understandable information about contraceptives and their correct use. Information needs to be presented in a way that makes it easy for them to put the information into practice (Hyde et al, 2001).

Because of the high incidence of sexually transmitted infections (STIs) among adolescents, prevention of STIs should be discussed together with contraception. A “belt and suspenders” approach to safer sex is advocated, where use of condoms as well as an OC is recommended in order to minimize the risk of both an unwanted pregnancy and STIs (Grimes, 1996).

All adolescents taking OCs should be advised to stop smoking because of evidence linking smoking and OC use to increased risks of cardiovascular complications (Hatcher, et al,

1998). While the issue of smoking should be addressed, it should be clear that smoking is not a contraindication to OC use in this age group, as it is with women over age 35. The health care provider should present the issue as an opportunity for the adolescent to make a healthy choice to quit or cut down. All adolescents should also be informed about the availability of emergency contraception in the event of method failure.

To prevent omission of important information, a teaching checklist outlining key points can be used. An example of such a checklist is included in Appendix A. Many authors recommend that an informed consent be obtained after counseling the adolescent. An informed consent implies that the adolescent makes a knowledgeable, voluntary choice, receives complete counseling about contraception and its consequences, and is free to change her mind (Youngkin & Davis, 1998).

*Benefits and Outcomes of Health Education* The main benefit to be achieved by teaching proper use of oral contraceptives is the prevention of unwanted pregnancies. It has been shown that, whereas awareness of the benefits of effective contraception alone does not change behavior, comprehensive guidance that conveys knowledge, imparts motivation, and teaches specific method use and negotiation skills does (Rieder and Coupey, 1999). The aim is to get more consistent use of OCs and increase the length of time the adolescent uses contraception effectively. OCs are the preferred method of contraception used by adolescents, with 44% of sexually active teenagers aged between 15 and 19 years using them (Davtyan, 2000).

The use of contraception by adolescents is cost effective regardless of the method used. In the US, current levels of contraceptive use averted an estimated 1.65 million pregnancies in teens between 15-19 years in 1995 (Davtyan, 2000). In Canada, it is estimated that for every



dollar spent on preventing teenage pregnancy, \$10 could be saved on the cost of abortion services and the short- and long-term costs of income maintenance to adolescent mothers. For the individual, this includes the emotional cost of loss, pain and disappointment; the economic loss of lost wages and benefits; and the costs of purchasing drugs and other uninsured treatments. The societal costs include the direct cost of health services, the costs of benefits paid to those adolescents requiring income support, the sick days that could have been avoided, and the loss of productivity of those who are emotionally, or physically distressed (Health Canada, 1999). Prevention clearly is preferable and cost effective.

### Oral Contraceptives

Combined Oral Contraceptives The term oral contraceptives (OCs), or birth control pills, refers to oral formulations of various combinations and dosages of the hormones estrogen and progestin. OCs have been available for over 35 years and pill use, effectiveness, risks, benefits, and side effects have been extensively researched (Youngkin and Davis, 1998). Today, low hormone dosages make OCs very safe and effective for most women. The hormones estrogen and progestin are combined in fixed dose pills (monophasic) or in variable amounts in relation to one another throughout the pill cycle, as in biphasic or triphasic preparations. There are over 30 combination OCs presently on the market in the U.S. (Hatcher et al., 1998). In Canada, there are currently 21 formulations listed in the CPS (Canadian Pharmacists Association, 2001). OCs are available in 21 or 28-day packs. Active pills are taken the first 21 days. 28-day preparations contain seven “spacer” tablets that are inert.

OCs are the most popular form of contraception used by adolescents (Tafelski and

Boehm, 1995). Although OCs require a prescription and evaluation by a physician, they are still readily obtainable for adolescents, are easy to use, provide safe and effective contraception and do not require any pre-coital action. This method does require some motivation for the girl to take them on a regular basis, however.

The World Health Organization has developed a list of guidelines to aid health care providers in determining for whom combination OCs can be prescribed (Gold, 1999). These include conditions that are absolute or relative contraindications to OC use and conditions that require caution. The adolescent must be assessed by a qualified practitioner who can prescribe the appropriate formulation of OC for each individual.

*Mechanism of Action, Effectiveness, and Safety of Oral Contraceptives* Pregnancy is prevented by several effects of estrogen and progestin (Youngkin & Davis, 1998). These effects include: suppression of gonadotropin-releasing hormone, which in turn suppresses follicle-stimulating hormone and luteinizing hormone, inhibiting ovulation; altered transport of the ovum through the fallopian tube; thickening of the cervical mucus, inhibiting sperm transport; inhibition of implantation by suppression of the endometrium and alteration of uterine secretions.

OCs are considered highly effective in preventing pregnancy, with a failure rate of only 0.1% with perfect use (Hatcher, et al, 1998). The typical failure rate in adults, however, is about 5% and in adolescents this increases to 10 - 15% at one year of use, mainly due to inconsistent use (Davtyan, 2000). In addition, OCs have a high attrition or discontinuation rate. Nearly 30% of women in general and 50% of adolescents will not still be using them a year later (Varney, 1997). These facts should prompt health care practitioners to provide appropriate counseling,

discuss alternate methods of contraception, and schedule frequent follow-up visits with adolescents to reinforce teaching.

Adolescents should be reassured that OCs are some of the best studied medications ever prescribed and they have been shown to be very safe for women who have no contraindications. The risk of death from taking OCs is exceedingly low and would be lower if heavy smokers over 35 years of age did not take OCs (Hatcher, et al, 1998). Expert opinion supports the use of OCs by adolescents as a safe method to avoid unwanted pregnancy, since the overall risks of taking OCs are much less than the risks of pregnancy (Canadian Task Force, 1994).

*Advantages and Non-contraceptive Benefits* There are a number of significant benefits for adolescents who take OCs (Hatcher, et al, 1998 and Youngkin & Davis, 1998). The advantages of OCs, as well as their beneficial effects outside their contraceptive component, should be presented to adolescents as this can often increase motivation to take the pill and to continue taking it regularly (Davtyan, 2000).

Advantages include: a high rate of effectiveness when taken consistently and correctly; safety when used throughout reproductive years when there are no contraindications; ease of use and convenience; rapid reversal of effects after discontinuing use; no association with the act of intercourse; and use is controlled by the adolescent.

Non-contraceptive benefits include: decreased pain and cramping associated with menses; decreased amount and duration of bleeding so that periods are regular and predictable; fewer symptoms of premenstrual syndrome, such as anxiety, depression, headaches, and fluid retention; acne improvement; improvement in hirsutism (increased hair growth); protection against ovarian and endometrial cancer; lower incidence of ovarian cysts and endometriosis;

decreased risk for benign breast disease; and prevention of ectopic pregnancy.

In addition, many adolescents are concerned with their body image and worry that they may gain weight while taking OCs. There is no significant evidence that OCs cause weight gain (Davtyan, 2000). This presents a good opportunity to counsel about the benefits of a healthy diet and regular exercise.

*Disadvantages, Side Effects, and Complications* Counseling adolescents about the disadvantages and potential side effects and complications of OCs is essential. Adolescents need to be able to recognize and report problems. In addition, adolescents who are familiar with the potential problems are more likely to be willing to manage them rather than stop using OCs (Davtyan, 2000).

Some of the disadvantages of OCs include: the adolescent must remember to take pills daily; OCs provide no protection against HIV infection and other STIs, therefore condoms must also be used; a prescription is needed, so the adolescent must interact with the medical system; for some adolescents, the thought of having a pelvic examination is intimidating; and the hormones in OCs affect all body systems, so there are many potential side effects.

Side effects and complications are caused by systemic effects of OCs and may be due to estrogenic, progestational, and/or androgenic activities (Youngkin and Davis, 1998). It is important for the adolescent to know that some side effects will have spontaneous remission as her body adjusts to the hormonal effect of the pill. This is common especially with side effects occurring during the first three cycles of OC use. The adolescent should be encouraged to “wait it out” and spontaneous remission should occur by the fourth cycle. If side effects continue or worsen, she may need to switch to a different formulation of OC. For more severe or persistent

side effects, OCs may need to be discontinued and the adolescent counseled about another method of contraception (Varney, 1997).

Some common side effects include: unwanted menstrual cycle changes, including missed periods, very scanty bleeding, spotting, or breakthrough bleeding; nausea or vomiting; headaches (new onset or worsening headaches); increased depression, irritability and/or moodiness; decreased libido; breast tenderness; skin changes (chloasma, telangiectasias); and hair loss.

Some more serious side effects or complications include: increased cervical ectopy and possible increased risk for chlamydia infection; impaired glucose tolerance; gall bladder disease acceleration; hepatocellular adenoma; possible increase risk for breast cancer and cervical cancer; and risk of cardiovascular disease - hyper-coagulability, arterial thrombosis, hypertension, and atherogenesis (Note: women's lifestyle and habits are more important than use of OCs in determining their risk for cardiovascular disease (CVD). Characteristics that increase a woman's risk for CVD include: sedentary, overweight and over 50 years of age, hypertension or history of heart or vascular disease, diabetic or family history of diabetes, smoking, and hypercholesterolemia.).

In addition to side effects and complications, adolescents need to be made aware of drug interactions with OCs. Certain medications reduce the effectiveness of OCs, including some anti-tuberculosis drugs, anti-seizure medication, sedatives, antibiotics, and anti-fungal medication. The action of some drugs is potentiated by OCs, including some anti-anxiety medication, bronchodilators, anti-depressants, and corticosteroids. OC users will require a decreased dose of these medications. Conversely, the action of some drugs is reduced by OCs, including some antihypertensives and analgesics (Tylenol). OC users will require increased

doses of these medications to be effective (Varney, 1997). It is imperative, therefore, to inform adolescents to tell the practitioner they see for any medical problems that they are taking OCs.

**Warning Signals** Adolescents need to be made aware of early pill danger signs. Any of these symptoms may mean serious trouble and require immediate medical attention. A useful acronym to help the adolescent remember is the first letters of the word **ACHES** (Hatcher, et al. 1998, p.457):

- A** Abdominal pain (severe)
- C** Chest pain (severe, cough, shortness of breath or sharp pain on breathing in)
- H** Headache (severe), dizziness, weakness, or numbness, especially if one-sided
- E** Eye problems (vision loss or blurring)
- S** Severe leg pain (calf or thigh), speech problems

**Initiating Pill Use** Adolescents need clear, simple instructions when starting OCs, supplemented with written information to take home (Hatcher et al, 1998 and Gold, 1999). Combination OCs can be initiated in 3 ways. With the first day start approach the adolescent would start the OCs on the first day of her next menstrual cycle. With the Sunday start approach, the first pill is taken on the first Sunday after the next menses begins. If menses begins Sunday, it would be taken on that day. The third approach is the visit day start, when she would take the first pill the day she receives the OCs. Pregnancy needs to be ruled out before this approach can be used.

A back up method, such as condoms or foam, needs to be used for the first 7 days of pills, as the OC may not be fully protective against pregnancy during this time. A backup should also be used if she runs out of pills, stops taking them, misses pills, or has diarrhea or vomiting.

One pill is taken each day until the pack is finished. If using a 28-day pack, a new pack is started immediately and no days are skipped. If using a 21-day pack, no pills are taken for 7 days, then a new pack is started. The OCs should be kept in a safe place, where she will be reminded to take one pill daily at approximately the same time every day. She should associate pill taking with a daily routine, such as going to bed, brushing her teeth, or eating a meal.

*Dealing With Missed Pills* Recent studies have shown that the most risky time to miss pills is at the beginning of the pack, right after the hormone free interval, or during the third week of active pills. During these times, there is an increased risk of ovulation and pregnancy. Missing a pill during week two of the cycle or any of the inert pills of the 28-day pack does not present a major concern (Youngkin and Davis, 1998).

The following instructions for missed pills are found in Hatcher et al. (1998). If one or more of the inert (reminder) pills of a 28-day pack are missed, there is no increased risk for pregnancy and no back up method is needed. She is to throw out the missed pills, keep taking one pill each day until the pack is finished, and start the next pack on the usual day. If any of the 21-day hormonal pills are missed, she is to use a backup method of contraception such as condoms or foam, even if a pill was taken as little as 12 hours late. A backup method must be used for 7 days or she must abstain from sex for 7 days. If it is less than 24 hours late, she should take the missed pill right away return to her daily pill-taking routine, and take the next pill at the usual time. If it is 24 hours late, she should take both the missed pill and today's pill at the same time. If it is more than 24 hours late or 2 missed pills, she should take the last pill that was missed immediately, take the next pill on time, throw out the other missed pills, and take the rest of the pills in the pack on schedule. If a pill is missed during the third week of the cycle, she

should finish the rest of the hormonal pills in the pack and start a new pack the next day. She should be advised that she might not have a period until the end of the second pack of pills and that missing a period is not harmful.

All these instructions are much too complicated to give to adolescents. Instead, it may be easier to tell them to use another form of birth control if they miss one or more pills and will continue to be sexually active. They should also be instructed to contact their health care practitioner if they have questions or concerns about missed pills.

Follow-up A return visit is recommended after two to three complete pill cycles to reassess OC usage, compliance, side effects, satisfaction and any questions or concerns. After this, the adolescent should be seen at least every 6 months, depending on individual circumstances (Varney, 1998). STD checks should also be considered at follow-up visits. Evidence indicates that adolescents may require more frequent follow-up. Rapid access to a health care provider has been shown to increase compliance.

If a period is missed and the adolescent missed one or more pills, the pills should be discontinued and a pregnancy test done. Adolescents who consistently miss pills should consider another method of contraception (Youngkin and Davis, 1998). Adolescents who are at high risk to get pregnant should be counseled to take prenatal vitamins, including folic acid.

### Summary

The topic of adolescent sexuality and prevention of teen pregnancy is certainly one that requires the attention of health care practitioners. The development of clinical practice guidelines in this area is one way to assist practitioners who work with adolescents to obtain the



most current and relevant information they need to be more effective. Nurse practitioners who work in primary care settings have many opportunities to positively influence adolescent clients in their decisions regarding sexuality. Nurse practitioners' knowledge of research utilization could be applied to the development of clinical practice guidelines. Their roles as educators, leaders, and change agents could involve the dissemination, implementation, and evaluation of the guidelines.

## Chapter 3

### Methodology

#### Guideline Development

A review of the literature was done to find the most current information on adolescent sexuality and use of oral contraceptives. The sources used in the bibliographic search included the automated databases CINAHL and MEDLINE and the Cochrane Library of systematic reviews. Keywords used in the search were oral contraceptives/birth control, adolescents / teenagers, and teaching/counseling. Current articles and textbooks that reflect prevailing practice were reviewed. A search was also done to try to find any existing guidelines for teaching the use of oral contraceptives, including checking Internet sites of various professional and organizational groups. There were no guidelines found that were specific to OC use by adolescents and that included the background information on health care of adolescents. Several individuals who are experts in the field of adolescent sexuality were also contacted for information and asked to identify relevant literature.

A professional version of teaching guidelines for use of OCs by adolescents was developed from a synthesis of the literature for the purpose of educating health professionals who counsel adolescents regarding contraception. The goal of this version is to increase the knowledge base of the health professionals regarding adolescent sexuality, counseling adolescents, and the use of oral contraceptives. This version provides relevant research and background information, including references. The guidelines can be used by various health care providers including PHNs, health educators, and primary care nurses and physicians. They may also be used by non-health care professionals who work with adolescents, such as social workers

or school counselors. The intervention involves teaching and counseling, which relate to activities associated with education of the client regarding knowledge and skills to be acquired. This can occur in various settings, including public health clinics or offices, primary care or family practice clinics, community health clinics or centers, schools and homes. A copy of the professional version of the guidelines can be found in Appendix B.

A client version of the guidelines, in the form of a handout, was also developed. This version contains relevant information that the adolescent needs to know when first starting on OCs. It is written in point form for easy, quick reading and in language that is easy to understand. The health professional using these guidelines can go over all these points with the adolescent and this will ensure that no important information is missed or forgotten. It can then be given to the adolescent as a handout to take home. The health professional's name and phone number is included to encourage the adolescent to seek more information if any questions or problems arise. Also included is a consent form that both the adolescent and the health professional sign, which remains in the client chart. This will show documentation that appropriate counseling was given. Agencies can modify this form according to their own needs. A copy of this client handout can be found in Appendix C.

#### Dissemination and Informal Evaluation of the Guidelines

The teaching guidelines and client handout were presented to staff at various clinical settings. Information sessions were held at each site using an overhead presentation. Each health professional was given a copy of the teaching guidelines and the client handout to review. A copy of the overhead presentation slides can be found in Appendix D.

Immediately after each information session, the staff present were asked to evaluate the

guidelines. This evaluation was carried out for the purpose of testing the guidelines and providing immediate feedback on parameters such as content, format, readability, applicability, and validity of the information. A copy of the evaluation form is included in Appendix E.

### Proposed Evaluation Framework

The final step in the process of guideline development is evaluation. The guidelines need to be implemented for a period of time by health professionals in the field who work with the issues addressed by the guidelines. The health professionals then give feedback regarding the use and effectiveness of the guidelines and any necessary revisions are made. The following section describes one such evaluation project.

One evaluation framework that could be used to evaluate the teaching guidelines developed for this practicum project is a non-experimental pretest - posttest design that measures a shift from baseline. Baseline data would be collected from the health professionals before being presented with the new guidelines. In situations where there is no control group, a criterion referenced pretest based on program objectives is essential so that gains can be documented (Fitz-Gibbon & Morris, 1987). Similar data would be collected after the intervention (use of the guidelines). Progress is thus measured not against a control group, but rather against the treatment group's own baseline data (a shift from baseline design).

Both quantitative and qualitative methods of data collection would be used. This is an example of an integrated design where multi methods are used and has the advantages of obtaining types of data that are complementary and of enhancing the validity of the study (Polit, et al, 2001). Quantitative methods gather numeric information, such as demographic data, or can measure variables on a composite scale, such as a Likert scale. Quantitative questions are easy to

administer, ensure comparability of responses, and simplify data analysis. Qualitative methods gather narrative, descriptive data and are good methods to use for programs that emphasize individual outcomes or in cases where other descriptive information from participants is needed. Qualitative data is also helpful in gathering information to improve the program during formative evaluation (McKenzie & Smeltzer, 1997).

A pretest questionnaire would be administered to the health professionals before the information session on the guidelines. The questionnaire would ask both open ended (qualitative) and closed ended (quantitative) questions regarding the health professionals' current knowledge of oral contraceptives, what they include when they teach and counsel adolescents, what their sources of information are, what resources they use, and how satisfied and confident they are with their method of teaching. It would also include some demographic data such as their professional background and the number of clients they see monthly.

The health professionals would then be presented with the guidelines and asked to use them in their practice for a specified trial period. At the end of this time, they would be given a post-test questionnaire which would ask how many clients were seen and if the guidelines were used with each client. Questions to measure the knowledge base of the health professionals would again be asked to determine if using the guidelines had affected this variable. Questions to measure staff satisfaction with their teaching method would also be included. It is hoped that using the guidelines would increase the staff's knowledge base and their satisfaction with their teaching method. Questions would also be included asking opinions of the guidelines and comments for any suggested changes.

The questionnaires would be coded, so that the pre and post questionnaires could be

matched for each individual and responses could be compared while maintaining anonymity. Data from the comments and suggestions given by the health professionals on the second questionnaire would be summarized and shared with all the staff. Suggestions for changes would be incorporated into a final revision of the guidelines. Examples of pre and post questionnaires that could be used for this evaluation project are included in Appendix F.

The main goal of reducing unwanted pregnancies through more consistent use of OCs would not be measured in this evaluation project. It would be very difficult to measure the effect of using the guidelines on these variables, since there are so many other factors that affect teen pregnancies. An evaluation project measuring these variables would require a much longer time frame and a more rigorous study design. One such design that could be used if time and resources were not an issue is a randomized control study using adolescents as subjects. The use of an experimental design to evaluate a program offers the greatest control over the various factors that may influence the results. It involves random assignment to experimental and control groups with measurement of both groups and it produces the most interpretable and defensible evidence of effectiveness (McKenzie and Smeltzer, 1997). Using an experimental design to evaluate the effects of implementing the teaching guidelines could be possible by randomly assigning adolescents to either a control group, who would be counseled in the usual practice of the setting, or to an experimental group, who would be counseled by professionals using the guidelines. Measurements could then be made to see how the two groups differed. Variables measured could include such things as knowledge and self-efficacy. Behavioral variables, such as length of time using OCs, number of return visits or phone calls, and requests for emergency contraception or pregnancy tests, could also be measured.

## Chapter 4

### Results

#### Dissemination of the Guidelines

The guidelines were presented to health care practitioners at three locations. The first took place on June 12, 2001 at Kildonan Medical Centre (KMC) , where 12 people attended. Those attending included clinic nurses, physicians, and family practice residents. The presentation was done during regularly scheduled chart rounds, so there was only 30 minutes allotted. Because of this time constraint, the presentation was brief and those who attended were asked to review the guidelines and fill out the evaluation form within the next week. Only three forms were returned after this time. After several reminders, four additional forms were returned for a total of seven responses, a response rate of 58%.

The second presentation took place at Children's Clinic on June 14, 2001. Six nurses from Medical Clinic, Teen Clinic, and the adolescent ward at Children's Hospital attended. It was a one hour presentation after which each nurse filled out and returned an evaluation form, a response rate of 100%.

The third presentation took place at a Central Region Public Health meeting in Carman, MB on June 18, 2001. A total of 26 nurses attended. This presentation lasted almost two hours because of the great deal of discussion that took place. A total of 24 evaluation forms were returned at the end of the presentation, a response rate of 92%.

A fourth presentation was being planned for the primary care physicians and nurses and the PHNs at Nor'West Community Co-op Health Centre, but this could not be arranged within the given time frame due to staff workload and other commitments. The guidelines were given

to the staff at Nor'West to review on their own.

### Results from the Evaluations

Tables 1, 2, and 3 summarize the number of checked responses to each question given on the evaluation forms that were returned from each group. The numbers in brackets represent the score assigned to each response, with the highest possible score of 5. A mean score has been calculated for each question.

**Table 1. Responses and Mean Scores for KMC Group (N=7)**

Question	Responses					
	Poor (1)	Fair (2)	Good (3)	Very Good (4)	Excellent (5)	Mean Score
1 a) Length	0	0	1	6	0	3.9
b) Usefulness & Relevance of information	0	0	1	3	3	4.3
c) Contents	0	0	1	3	3	4.3
d) Format & Organization	0	0	1	1	5	4.6
2. Likelihood of using Guidelines	Very Unlikely (1)	Probably Not (2)	Not Sure (3)	Probably (4)	Very Likely (5)	Mean Score
	0	0	2	1	4	4.3
3. Benefit to Adolescents	Not at All (1)	Somewhat (2)	Moderately (3)	Much (4)	Very Much (5)	Mean Score
	0	1	2	1	3	3.9



**Table 2. Responses and Mean Scores for Children's Clinic Group (N = 6)**

Question	Responses					
	Poor (1)	Fair (2)	Good (3)	Very Good (4)	Excellent (5)	Mean Score
1 a) Length	0	0	0	6	0	4
b) Usefulness & Relevance of information	0	0	1	5	0	3.8
c) Contents	0	0	2	3	1	3.8
d) Format & Organization	0	0	2	3	1	3.8
2. Likelihood of using Guidelines	Very Unlikely (1)	Probably Not (2)	Not Sure (3)	Probably (4)	Very Likely (5)	Mean Score
	0	0	0	3	3	4.5
3. Benefit to Adolescents	Not at All (1)	Somewhat (2)	Moderately (3)	Much (4)	Very Much (5)	Mean Score
	0	2	1	1	2	3.5

**Table 3. Responses and Mean Scores for PHN Group (N=24)**

Question	Responses					
	Poor (1)	Fair (2)	Good (3)	Very Good (4)	Excellent (5)	Mean Score
1 a) Length	0	0	2	13	9	4.3
b) Usefulness & Relevance of information	0	0	1	10	13	4.5
c) Contents	0	0	1	11	12	4.5
d) Format & Organization	0	0	1	10	13	4.5
2. Likelihood of using Guidelines	Very Unlikely (1)	Probably Not (2)	Not Sure (3)	Probably (4)	Very Likely (5)	Mean Score
	4*	0	0	1	19	4.3 (4.9)**
3. Benefit to Adolescents	Not at All (1)	Somewhat (2)	Moderately (3)	Much (4)	Very Much (5)	Mean Score
	0	0	1	10	13	4.5

\*These four responses are likely mistakes because of the reverse order of responses for this question compared to question one on the evaluation form.

\*\* The mean score is 4.9 when the four outliers are not counted and the mean score is calculated with N=20.

Table 4 shows a comparison of the mean scores between each group for each question.

Total mean scores for each question have been calculated.

**Table 4. Comparison of Mean Scores for all Groups**

Question	KMC N=7	Children's Clinic N=6	PHNs N=24	Total Mean Scores N=37
1 a) Length	3.9	4	4.3	4.2
b) Usefulness & Relevance of information	4.3	3.8	4.5	4.4
c) Contents	4.3	3.8	4.5	4.4
d) Format & Organization	4.6	3.8	4.5	4.4
2. Likelihood of using Guidelines	4.3	4.5	4.3 (4.9)*	4.3 (4.7)*
3. Benefit to Adolescents	3.9	3.5	4.5	4.2

\* Mean scores when the four outliers are not counted (see Table 3).

### Summary of Written Comments

Question one, which involved rating the guidelines on various aspects, had very few written comments, about three to four comments for each aspect. Regarding length, there were only a couple of comments that the guidelines were lengthy and would probably be skimmed over. Regarding usefulness and relevance of information, there were comments stating the guidelines were very appropriate and met the need for best practice guidelines. One respondent criticized the guidelines for occasionally being unclear regarding evidence and particularly strength of evidence. Regarding the contents being accurate and understandable, one respondent questioned some of the information regarding the benefits of OCs and felt this information should be deleted. Others commented that the guidelines were well researched, evidence based, and have a very good bibliography. Regarding format and organization, respondents stated that the guidelines were well written, the bullets were well done and catch the eye. One respondent felt that the developmental and medical sections should be more clearly delineated.

Question two asked respondents how likely they were to use these guidelines in their practice. 12 out of 37 evaluation forms (37%) listed comments for this question. Only one respondent stated that there was little new information for him personally, but felt the information was useful for those in training. The rest of the comments were very positive, stating the guidelines were a good resource, had relevant information, would improve patient care, and offer a good starting point in dealing with the challenge of adolescent education.

Question three asked respondents how much they thought the handout would benefit adolescents. More respondents commented on this question, with comments on 54% of evaluation forms. The most prevalent theme was that of literacy. Many respondents felt that the

handout was written in language too difficult for most adolescents and needed to be adapted to a grade six reading level. Others commented that it should be shorter, should include pictures, should be combined with counseling and follow-up, and needed repeated reinforcement and review. Other comments were very positive, stating the handout was an excellent resource and a quick reference, that they would definitely use it, and that it is important for adolescents to leave with written information.

Question four asked for any other comments. This question had the most comments, with 81% of the evaluations having responses. The great majority of comments here gave positive reinforcement, such as words of thanks and appreciation, encouragement, and word of praise. Other comments included requests for guidelines for STDs and contraceptive teaching for males, a suggestion that the guidelines would make a very useful school presentation, and the difficulty in setting up accessible teen counseling in high schools while maintaining confidentiality. One respondent suggested the guidelines should be organized differently to make them more reader friendly.

## Chapter 5

### Discussion

The three information sessions to present the guidelines to the KMC, Children's Clinic, and PHN groups all went very well and, overall, the responses from participants were overwhelmingly positive. The total mean scores for the questions on the evaluation forms were between 4.2 and 4.7 out of a possible score of 5 (see Table 4). This means that the majority of participants rated the guidelines either very good or excellent, stated the likelihood that they would use the guidelines was probable or very likely, and felt that the handout would benefit adolescents much or very much.

When looking at the comparison of the mean scores between the groups (Table 4), the most noticeable difference seems to be that the PHN group gave higher responses for most questions, while the Children's Clinic group rated the lowest. The PHNs also had more positive written comments, with many words of thanks, appreciation, and praise. This could be because the investigator was a former colleague and also because these guidelines were requested and wanted by the PHNs. The Children's Clinic group were the most critical of the guidelines, with lower scores and more negative comments. One reason for this could be that this group sees many more high risk adolescents because of their location in the inner city. These guidelines were meant for adolescents who are motivated to use oral contraceptives and who have been assessed as being appropriate candidates for OC use. High risk adolescents, such as those who abuse drugs, are developmentally delayed, have difficult social situations, display other high risk behaviors, or wish to become pregnant may not benefit much from these guidelines. These adolescents need more intensive counseling and perhaps would benefit from other types of birth

control, such as Depo Provera.

Another difference between the groups was in the response rate. When evaluation forms were completed right after the information sessions, the number of returned forms was much higher than when participants were asked to return the forms at a later date (100% and 92% response rates for Children's Clinic and PHNs versus 58% response rate for KMC). Although it could be argued that a more complete and accurate evaluation would be obtained if participants were given more time to review the guidelines, the response rate would probably always remain low. It would be a trade off between the number of returned forms and the quality of the responses. The four outliers on question two for the PHN group (see Table 3) could have resulted from being rushed when filling out the form. The order of responses should have remained the same for each question.

The great majority of written comments for all three groups were comments giving positive reinforcement. The most common criticism of the guidelines was that they were not checked for literacy and many participants felt that the handout was written in language too difficult for adolescents. There was verbal discussion about this issue at all three sessions. The PHNs, in fact, have decided to adapt the handout to a grade 6 reading level and will use the revised handout.

There were only a few other negative written comments, most of which reflected personal opinions and preferences. The source and accuracy of the information was questioned by one respondent and the quality and strength of evidence was questioned by another respondent. The information contained in the guidelines was obtained from current literature and expert opinion and many respondents had positive comments regarding contents of the

guidelines. It was surprising that there were so few comments on the length of the guidelines, since they do contain quite a lot of information.

### Limitations

One thing that could have been done differently is that the evaluation form used could have been improved to get more specific feedback. The questions on the evaluation form did not ask for responses about the professional version of the guidelines and the client handout separately. This is something that perhaps should have been done, so that each document could be separately evaluated. This was added, however, to the posttest questionnaire developed for the proposed formal evaluation of the guidelines (see Appendix F).

The barriers of lack of time and heavy workload were encountered when planning the fourth presentation at Nor'West. This is a common problem encountered when trying to disseminate and implement guidelines. The staff there had identified the need for contraceptive guidelines and were enthusiastic about attending an information session, but there was no time to implement this change. Hopefully, they will be able to review the guidelines individually and gain some benefit from them.

An area of concern regarding this project is the question of whether the guidelines developed are truly "evidence-based". There was one respondent who commented on his evaluation form that the sources and strength of evidence was not evident in all areas of the guidelines. This, perhaps, was a correct assessment and supports the notion that constructing evidence-based guidelines is a very difficult task. The nature of this particular project was that it involved many different topic areas, with each area containing vast amounts of information in the literature. The project involved changing behavior, which is very subjective and difficult to



measure. There were no randomized controlled studies quoted and, in fact, most of the sources of information were obtained from professional consensus and expert opinion. On the topic of oral contraceptives, most of the original studies were done in the 1960s and many of them were used as references in the current literature. It would be beyond the research capabilities of this investigator to critically appraise each piece of information for quality of evidence, not to mention the amount of time it would require. Therefore, the questions of whether these guidelines are really “evidence-based” and what this term means still requires some thought.

Another limitation of this project is that these guidelines were developed by only one person. The process of guideline development normally is a very long and complex undertaking which takes a great deal of time and effort from many individuals. The process should involve the formulation of a guideline panel composed of individuals who represent various key stakeholders related to the topic of the guideline (Marek, 1995). These guidelines, therefore, should be considered as draft copies only.

Finally, this project tried to tackle the problem of teen pregnancy only indirectly, through trying to change the behavior of health professionals. Combining this with a project which deals directly with adolescents would most probably strengthen the chances of having a positive effect on reducing the rate of unwanted teen pregnancy.

### Recommendations

It is recommended that the next step in guideline development be carried out, that is the development of a committee to review and evaluate the guidelines. Part of the revisions should include a check for literacy for the client handout. It would be worthwhile to present the guidelines to the provincial committee who is developing contraceptive guidelines. This

information could then be shared and disseminated province wide.

### Conclusion

From the results of the informal evaluations of the guidelines, it can be said that this practicum project has been successful in meeting most of its goals. The main purpose of this project was to create teaching guidelines for health professionals to use when counseling adolescents about the use of oral contraceptives. This was done, along with the presentations of the guidelines to various clinical settings to educate health professionals and obtain their feedback. From the informal evaluations after the presentations, it can be concluded that the aims of providing consistency in counseling adolescents about OC use and ensuring reliable and relevant information is provided to adolescents have been met. The guidelines were found to be relevant, informative, and useful. There was also valuable feedback obtained about how to improve the guidelines. The objectives of increasing the knowledge base and satisfaction of the health professionals who use the guidelines would require the implementation of a more formal evaluation project, such as the one proposed in Chapter 3. Feedback from users of the guidelines could then also be used to make revisions.

The reason this project was carried out was because of an identified need by the PHNs in Central Region. The fact that the PHNs requested these guidelines and that they were pleased with the results means that the guidelines will very likely be implemented by that group.

The goal of reducing the rate of unwanted teen pregnancies is one that is shared by many health care professionals. It is hoped that implementation of these teaching guidelines will assist in meeting this goal by educating both adolescents and the health care professionals who work with them.

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## **Appendix A**

### **Teaching Checklist**

## **Counseling Adolescents about the use of Oral Contraceptives**

### **Checklist**

- ☐ Review female and male anatomy and physiology
- ☐ Sexuality, relationships, safety, risk taking behaviors
- ☐ Use of drugs, alcohol, smoking
- ☐ Review all methods of contraception
- ☐ Use of condoms for STI prevention
- ☐ Emergency contraception
- Regarding oral contraceptives:
  - ☐ Mechanism of action
  - ☐ Effectiveness and safety
  - ☐ Advantages and non-contraceptive benefits
  - ☐ Disadvantages
  - ☐ Side effects and possible complications
  - ☐ Drug interactions
  - ☐ Warning signals
  - ☐ Initiating pill use
  - ☐ Dealing with missed pills
  - ☐ Follow-up



## **Appendix B**

### **Professional version of the Guidelines**

## **Teaching Guidelines for the Use of Oral Contraceptives by Adolescents**

### **Health Care of Adolescents**

**Adolescent Developmental Stages** Adolescence has long been considered a critical period in human development. Murray and Zentner (2001, p. 525) define adolescence as "...the period in life that begins with puberty and extends for eight to ten years or longer, until the person is physically and psychologically mature, ready to assume adult responsibilities and be self-sufficient because of changes in intellect, attitudes, and interests." Murray and Zentner (2001) describe the various stages of adolescence as follows:

*Early adolescence* begins with puberty and lasts for several years, usually between ages 11 - 14 in females. This is a period of rapid growth, when adolescents focus attention on self and on the task of becoming comfortable with body changes and appearance. During this time, they try to separate from their parents. Conformity to and acceptance of peer-group standards and peer friendships gain importance. A dependency-independency struggle may occur, where there is less involvement in family activities, criticism of the parents, and rebellion against parental and other adult discipline and authority. The peer group usually consists of same sex friends, but there is increasing interest in the opposite sex. During this stage, a shift in cognitive styles begins, where adolescents move from concrete to formal operations, developing the ability to think abstractly (Tobias and Ricer, 1998). In early adolescence, concrete thinking still predominates, with magical thinking and a rich fantasy life. At this level, adolescents lack the ability to understand consequences of high risk behavior and have difficulty understanding cause and effect.

*Middle adolescence* begins when the majority of physical growth is completed, usually between the ages 14 - 16 in females. The major tasks of this stage are achievement of ego identity, attainment of greater independence, interest in the future and career planning, and establishment of a sexual relationship. Peer group allegiance is manifested by clothing, foods and other fads, preferred music, and common jargon. Experimentation with adult-like behavior and risk taking is common in an attempt to prove self to peers. Sexual experimentation often begins now (or earlier) as a result of social exploration and physical maturation. Changes in cognitive functioning includes moving to more abstract thinking and the ability to envision future outcomes of behavior. The rate of acquisition of these skills is highly variable and, even when adolescents have reached the stage of formal operations, they may revert to a concrete operational stage during times of stress.

*Late adolescence* may occur from approximately ages 18 - 25 years. By now, adolescents have usually finished rebellious behavior, have formed their views, have established a stable sense of self, and question relationships to existing social, vocational, and emotional roles and lifestyles. Their value system is being clarified and issues of philosophy, religion, life and death, and ethical decisions are being analyzed. They develop adult-like friendship with their parents and participate more in individual dating, with fewer group activities with friends. It is at this

stage that dyadic sexual relationships usually develop.

**Adolescent Sexuality** Much has been written about adolescent sexuality. During youth and early adulthood, decisions about sexual activity and reproduction become very important. There is an increase in sexual interest at around puberty, which continues through the teen years. Some of the factors associated with this increased interest in sexuality include bodily changes and an awareness of them, rises in levels of sex hormones, and increased cultural emphasis on sex and rehearsal for adult gender roles (Hyde et al, 2001). A major developmental task of adolescence is learning how to manage physical and emotional intimacy in relationships with others. Young people are curious about sex and sexual intimacy. They may have neither the readiness or desire to engage in sexual activity, but at the same time, may not have the decision-making skills and ego strength to behave counter to the peer group in order to abstain (Murray and Zentner, 2001).

Another powerful influence on teens is mass media. In a survey of Canadian Youth ages 11 -12, about one quarter named television or print media as their main source of information about sexuality (Hyde et al, 2001). These sources deal very explicitly with sexual themes, but consequences such as pregnancy or STIs are rarely discussed or shown and very few, or no, safe sex messages are given. Mass media portrayals of sexual relationships are, in general, unrealistic, with some of the long-term effects on adolescents being more permissive attitudes towards premarital sex and increased likelihood to engage in it.

Adolescents are not only having more sex, but they are engaging in first intercourse at younger ages compared to Canadians 30 years ago (Hyde et al, 2001). The proportion of adolescent girls who reported having engaged in at least one instance of intercourse rose from 28% in 1971 to as high as 52% in 1988 (Elder et al, 1994). This increase in premarital sex reflects two long-term trends: the age of menarche has been falling, to a present average age of 12.7 years and the age of first marriage has been rising. There has been a lengthening of the time between biological readiness and marriage, with the gap presently being 12 - 14 years (Hyde et al, 2001). The motives young people have for engaging in sexual activity include expressing love or affection for the partner, experiencing physical arousal or desire, wanting to please the partner, feeling pressure from peers, wanting physical pleasure, and curiosity. Girls are more likely to mention love and affection and boys are more likely to mention physical pleasure (Hyde et al, 2001).

Studies indicate that most adolescents engage in sexual behavior that places them at risk for pregnancy, sexually transmitted infections (STIs), and emotional upsets (Elder, et al, 1994). Education and contraceptive services have not kept up with the changing sexual attitudes and behaviors of adolescents. Consequently, contraceptive use is not reliable among teens. Some of the reasons that adolescents don't use contraceptives include: misconceptions or ignorance about them, inability to secure appropriate contraceptives, inability to plan ahead for their actions, belief that using contraceptives labels them as promiscuous, and rebelliousness (Murray and Zentner, 2001). The Canadian Youth and AIDS Study found that only 15% of University

students report consistently using a condom. Consistent condom use is also rare among high school students (Hyde et al, 2001). Condoms are used most frequently at the beginning of relationships or in casual encounters. Adolescents are likely to stop using condoms as they get to know a partner better. Most teens see themselves at low risk for contracting STIs, including HIV infection.

**Teen Pregnancy** In developed nations, the rate of teenage pregnancy has been high for decades. In the U.S., there are one million teen pregnancies every year (Elder et al, 1994). In Canada, there are about 46,800 teen pregnancies annually, which represents 4% of all adolescent girls (Hyde et al, 2001). The Manitoba teen pregnancy rate of 63.2 per 1000 females ages 15 - 19 years is substantially higher than the Canadian rate of 40.2 for 1994 (Manitoba Centre for Health Policy and Evaluation, 2001). Teen pregnancy rates in Manitoba have also been found to be highly correlated with income, with the highest rates for females in the lowest income group. Approximately 34% of teen pregnancies are terminated by abortion, 60% result in live births, and 5% end in miscarriage (Hyde et al, 2001). The great majority of unwanted teen pregnancies are the result of failure to use contraceptives responsibly.

Adolescent girls who become pregnant face traumatic decisions regarding abortion, adoption, or the arduous task of raising a child in the absence of life experience, food, shelter, and general education for the child or the mother (Elder et al, 1994). Various adverse maternal and infant effects of teen pregnancy have been documented in the literature, including biological and social effects. Teens typically have delayed entry into, and lower rates of, prenatal care. Tobacco, alcohol, and other substance abuse is reported to be higher among pregnant adolescents, and a relatively higher proportion of teens report physical and sexual abuse during pregnancy. Compared with mothers 20 - 24 years of age, mothers age 17 years or less have an increased risk for delivering babies who are preterm or growth retarded. Other adverse outcomes associated with teen pregnancy include preeclampsia, anemia, urinary tract infections, and post-partum hemorrhage (Health Canada, 2000).

With unwanted teen pregnancy, the adolescent mothers, their babies, and society suffer by paying for the compromised welfare of both the mother and baby for life. Society pays huge expenses in public health, medical, and social services to pregnant adolescents, their babies, and their families (Elder et al, 1994).

**Health Education - Counseling Adolescents** In order to effectively counsel adolescents on issues surrounding sexuality, it is crucial that health care providers understand not only the physical changes adolescents experience, but also the psychological developmental tasks that face them as they transition from childhood to adulthood. These include emancipation from the family of origin, acquisition of skills for future economic independence, development of a mature sexual self-concept, and achievement of a realistic and positive self image (Tobias and Ricer, 1998). Each adolescent will go through these physical and psychosocial changes at a different rate, so it is imperative for health care providers to assess the level of developmental and cognitive abilities of each adolescent and to tailor contraceptive counseling to individual

needs (Moriarty, 1997).

The Canadian Task Force on the Periodic Health Exam (1994) recommends that all health care providers who see adolescents should assess whether those who are sexually active are practicing appropriate contraception. Clinicians should involve adolescents and, where appropriate, their parents, in early, open discussion of sexual development and effective methods to prevent unintended pregnancy and STIs. Sexually abstinent adolescents should be encouraged to remain abstinent. Oral contraceptives (OCs) combined with condoms are the first choice for adolescents who do not wish to be sexually abstinent. The College of Physicians and Surgeons of Manitoba (2001) Guideline on Prescribing Contraceptives to Minors states that, although prescribing contraceptive drugs to minors without consent of the guardian is technically proceeding without legal consent, it is unlikely that the prescriber could be successfully attacked before the courts or an inquiry. In these cases, the OCs would be medically desirable and the prescriber would be acting in the best interest of the adolescent.

When an adolescent requests birth control, many issues need to be addressed. Counseling regarding sexuality, relationships, safety and risk taking behaviors need to be considered. She will need information on all birth control methods in order to make a decision on what is best for her. If choosing oral contraceptives, the proper formulation of OC needs to be prescribed by a qualified practitioner. Clinical breast and pelvic examinations are commonly accepted practices prior to the provision of hormonal contraception. However, a recent study has found that OCs can safely be provided based on careful review of medical history and blood pressure measurements, with no further evaluation necessary for most women (Stewart et al, 2001).

In addition, health professionals who are counseling adolescents need to develop communication styles and relationship building skills that will enhance the development of trust between the adolescent and the health professional. Studies have shown that adolescent compliance is determined in part by the relationship established with health care providers (Canadian Task Force, 1994). Factors influencing compliance include: accessible clinic hours, positive attitudes in the reception area, time spent waiting for the health care provider, care taken with the examination, assurances of confidentiality, and financial resources.

It is important to counsel adolescents in a safe, non-threatening environment through open, honest and non-judgmental communication, with assurance of confidentiality. Adolescents are looking for adults who can be admired, trusted, and leveled with and who genuinely care. They want honest feedback as they struggle with decisions. Teens need the opportunity to identify what they consider to be important problems and a chance to discuss their feelings, attitudes and ideas and to obtain factual information and guidance with effective solutions (Murray and Zentner, 2001). The promotion of healthy and responsible sexual decision-making is one of the goals of counseling adolescents about contraception. This requires effective dialogue, skillful history taking, careful listening, and repeated simple messages that contain essential information (AAP, 1999).

When teaching and counseling adolescents about contraception, it is important to review female and male anatomy and physiology and dispel any myths or misconceptions they may have. In addition, it is also important to review all contraceptive options with both oral and written instructions and use resources such as models, illustrations, and handouts. Contraceptive choices for adolescents include continuous abstinence, Depo-Provera, condoms and foam, and oral contraceptives. Norplant, the diaphragm, and the cervical cap may be considered, but are generally not appropriate for this age group. Methods that are not usually recommended for adolescents include sterilization, IUD, withdrawal, and periodic abstinence or fertility awareness methods (Planned Parenthood, 2001). Adolescent compliance with OC use may be enhanced by appropriate education and problem-solving techniques which include careful instruction regarding use of OCs, anticipatory guidance about side effects and their management, and frequent follow-up and monitoring (AAP, 1999). Adolescents who lack information about contraceptives and their correct use can scarcely use them effectively. They need accurate, relevant, and understandable information about contraceptives and their correct use. Information needs to be presented in a way that makes it easy for them to put the information into practice (Hyde et al, 2001).

Because of the high incidence of sexually transmitted infections (STIs) among adolescents, prevention of STIs should be discussed together with contraception. A “belt and suspenders” approach to safer sex is advocated, where use of condoms as well as an OC is recommended in order to minimize the risk of both an unwanted pregnancy and STIs (Grimes, 1996).

All adolescents taking OCs should be advised to stop smoking because of evidence linking smoking and OC use to increased risks of cardiovascular complications (Hatcher, et al, 1998). While the issue of smoking should be addressed, it should be clear that smoking is not a contraindication to OC use in this age group, as it is with women over age 35. The health care provider should present the issue as an opportunity for the adolescent to make a healthy choice to quit or cut down. All adolescents should also be informed about the availability of emergency contraception in the event of method failure.

To prevent omission of important information, a teaching checklist outlining key points can be used. Many authors recommend that an informed consent be obtained after counseling the adolescent. An informed consent implies that the adolescent makes a knowledgeable, voluntary choice, receives complete counseling about contraception and its consequences, and is free to change her mind (Youngkin & Davis, 1998).

**Benefits and Outcomes of Health Education** The main benefit to be achieved by teaching proper use of oral contraceptives is the prevention of unwanted pregnancies. It has been shown that, whereas awareness of the benefits of effective contraception alone does not change behavior, comprehensive guidance that conveys knowledge, imparts motivation, and teaches specific method use and negotiation skills does (Rieder and Coupey, 1999). The aim is to get more consistent use of OCs and increase the length of time the adolescent uses contraception

effectively. OCs are the preferred method of contraception used by adolescents, with 44% of sexually active teenagers aged between 15 and 19 years using them (Davtyan, 2000).

The use of contraception by adolescents is cost effective regardless of the method used. In the US, current levels of contraceptive use averted an estimated 1.65 million pregnancies in teens between 15-19 years in 1995 (Davtyan, 2000). In Canada, it is estimated that for every dollar spent on preventing teenage pregnancy, \$10 could be saved on the cost of abortion services and the short- and long-term costs of income maintenance to adolescent mothers. For the individual, this includes the emotional cost of loss, pain and disappointment; the economic loss of lost wages and benefits; and the costs of purchasing drugs and other uninsured treatments. The societal costs include the direct cost of health services, the costs of benefits paid to those adolescents requiring income support, the sick days that could have been avoided, and the loss of productivity of those who are emotionally, or physically distressed (Health Canada, 1999). Prevention clearly is preferable and cost effective.

### **Combined Oral Contraceptives**

Combined oral contraceptives (OCs) have been available for over 35 years and pill use, effectiveness, risks, benefits, and side effects have been extensively researched (Youngkin and Davis, 1998). Today, low hormone dosages make OCs very safe and effective for most women. The hormones estrogen and progestin are combined in fixed dose pills (monophasic) or in variable amounts in relation to one another throughout the pill cycle, as in biphasic or triphasic preparations. There are over 30 combination OCs presently on the market in the U.S. (Hatcher et al., 1998). In Canada, there are currently 21 formulations listed in the CPS (Canadian Pharmacists Association, 2001). OCs are available in 21 or 28-day packs. Active pills are taken the first 21 days. 28-day preparations contain seven "spacer" tablets that are inert.

OCs are the most popular form of contraception used by adolescents (Tafelski and Boehm, 1995). Although OCs require a prescription and evaluation by a physician, they are still readily obtainable for adolescents, are easy to use, provide safe and effective contraception and do not require any pre-coital action. This method does require some motivation for the girl to take them on a regular basis, however.

The World Health Organization has developed a list of guidelines to aid health care providers in determining for whom combination OCs can be prescribed (Gold, 1999). These include conditions that are absolute or relative contraindications to OC use and conditions that require caution. The adolescent must be assessed by a qualified practitioner who can prescribe the appropriate formulation of OC for each individual.

### **Mechanism of action, Effectiveness, and Safety of Oral Contraceptives**

Pregnancy is prevented by several effects of estrogen and progestin (Youngkin & Davis, 1998). These effects include:

- Gonadotropin-releasing hormone is suppressed, which in turn suppresses follicle-stimulating hormone and luteinizing hormone, inhibiting ovulation.
- ◆ Transport of the ovum through the fallopian tube is altered.
- ◆ Cervical mucus thickens, inhibiting sperm transport.
- ◆ Implantation is inhibited by suppression of the endometrium and alteration of uterine secretions.

OCs are considered highly effective in preventing pregnancy, with a failure rate of only 0.1% with perfect use (Hatcher, et al, 1998). The typical failure rate in adults, however, is about 5% and in adolescents this increases to 10 - 15% at one year of use, mainly due to inconsistent use (Davtyan, 2000). In addition, OCs have a high attrition or discontinuation rate. Nearly 30% of women in general and 50% of adolescents will not still be using them a year later (Varney, 1997). These facts should prompt health care practitioners to provide appropriate counseling, discuss alternate methods of contraception, and schedule frequent follow-up visits with adolescents to reinforce teaching.

Adolescents should be reassured that OCs are some of the best studied medications ever prescribed and they have been shown to be very safe for women who have no contraindications. The risk of death from taking OCs is exceedingly low and would be lower if heavy smokers over 35 years of age did not take OCs (Hatcher, et al, 1998). Expert opinion supports the use of OCs by adolescents as a safe method to avoid unwanted pregnancy, since the overall risks of taking OCs are much less than the risks of pregnancy (Canadian Task Force, 1994).

### **Advantages and Non-contraceptive Benefits**

There are a number of significant benefits for adolescents who take OCs (Hatcher, et al, 1998 and Youngkin & Davis, 1998). The advantages of OCs, as well as their beneficial effects outside their contraceptive component, should be presented to adolescents as this can often increase motivation to take the pill and to continue taking it regularly (Davtyan, 2000).

Advantages include:

- ◆ High rate of effectiveness when taken consistently and correctly.
- ◆ Very safe to use throughout reproductive years when there are no contraindications.
- ◆ Easy to use and convenient.
- ◆ Rapid reversal of effects after discontinuing use.
- ◆ Not associated with the act of intercourse and use is controlled by the adolescent.

Non-contraceptive benefits include:

- ◆ Decreased pain and cramping associated with menses.
- ◆ Decreased amount and duration of bleeding so that periods are regular and predictable.
- ◆ Fewer symptoms of premenstrual syndrome, such as anxiety, depression,



- headaches, and fluid retention.
- ◆ Acne improvement.
- ◆ Improvement in hirsutism (increased hair growth).
- ◆ Protection against ovarian and endometrial cancer.
- ◆ Lower incidence of ovarian cysts and endometriosis.
- ◆ Decreased risk for benign breast disease.
- ◆ Prevention of ectopic pregnancy.

In addition, many adolescents are concerned with their body image and worry that they may gain weight while taking OCs. There is no significant evidence that OCs cause weight gain (Davtyan, 2000). This presents a good opportunity to counsel about the benefits of a healthy diet and regular exercise.

### **Disadvantages, Side Effects, and Complications**

Counseling adolescents about the disadvantages and potential side effects and complications of OCs is essential. Adolescents need to be able to recognize and report problems. In addition, adolescents who are familiar with the potential problems are more likely to be willing to manage them rather than stop using OCs (Davtyan, 2000).

Some of the disadvantages of OCs include:

- ◆ Must remember to take pills daily.
- ◆ Provides no protection against HIV infection and other STIs, therefore condoms must also be used.
- ◆ Prescription needed, must interact with the medical system.
- ◆ For some adolescents, the thought of having a pelvic examination is intimidating.
- ◆ The hormones in OCs affect all body systems, so there are many potential side effects.

Side effects and complications are caused by systemic effects of OCs and may be due to estrogenic, progestational, and/or androgenic activities (Youngkin and Davis, 1998). It is important for the adolescent to know that some side effects will have spontaneous remission as her body adjusts to the hormonal effect of the pill. This is common especially with side effects occurring during the first three cycles of OC use. The adolescent should be encouraged to “wait it out” and spontaneous remission should occur by the fourth cycle. If side effects continue or worsen, she may need to switch to a different formulation of OC. For more severe or persistent side effects, OCs may need to be discontinued and the adolescent counseled about another method of contraception (Varney, 1997).

Some common side effects include:

- ◆ Unwanted menstrual cycle changes; including missed periods, very scanty bleeding, spotting, or breakthrough bleeding.
- ◆ Nausea or vomiting.

- ◆ Headaches (new onset or worsening headaches).
- ◆ Increased depression, irritability, and/or moodiness.
- ◆ Decreased libido.
- ◆ Breast tenderness.
- ◆ Skin changes (chloasma, telangiectasias).
- ◆ Hair loss.

Some more serious side effects or complications include:

- ◆ Increased cervical ectopy and possible increased risk for chlamydia infection.
- ◆ Risk of cardiovascular disease:
  - Hypercoagulability - arterial thrombosis.
  - Hypertension
  - Atherogenesis
  - \*Women's lifestyle and habits are more important than use of OCs in determining their risk for cardiovascular disease (CVD). Characteristics that increase a woman's risk for CVD include:
    - Sedentary, overweight and over 50 years of age.
    - Hypertension or history of heart or vascular disease.
    - Diabetic or family history of diabetes.
    - Hypercholesterolemia.
    - Smoker.
- ◆ Impaired glucose tolerance.
- ◆ Gall bladder disease acceleration.
- ◆ Hepatocellular adenoma.
- ◆ Possible increase risk for breast cancer and cervical cancer.

In addition to side effects and complications, adolescents need to be made aware of drug interactions with OCs. Certain medications reduce the effectiveness of OCs, including some anti-tuberculosis drugs, anti-seizure medication, sedatives, antibiotics, and anti-fungal medication. The action of some drugs is potentiated by OCs, including some anti-anxiety medication, bronchodilators, anti-depressants, and corticosteroids. OC users will require a decreased dose of these medications. Conversely, the action of some drugs is reduced by OCs, including some antihypertensives and analgesics (Tylenol). OC users will require increased doses of these medications to be effective (Varney, 1997). It is imperative, therefore, to inform adolescents to tell the practitioner they see for any medical problems that they are taking OCs.

### **Warning Signals**

Adolescents need to be made aware of early pill danger signs. Any of these symptoms may mean serious trouble and require immediate medical attention. A useful acronym to help the adolescent remember is the first letters of the word **ACHES** (Hatcher, et al. 1998, p.457):

- ◆ A Abdominal pain (severe)
- ◆ C Chest pain (severe, cough, shortness of breath or sharp pain on breathing in)
- ◆ H Headache (severe), dizziness, weakness, or numbness, especially if one-sided
- ◆ E Eye problems (vision loss or blurring)
- ◆ S Severe leg pain (calf or thigh), speech problems

### **Initiating Pill Use**

Adolescents need clear, simple instructions when starting OCs, supplemented with written information to take home. Instructions should include (Hatcher et al, 1998 and Gold, 1999):

- ◆ Starting OCs - combination OCs can be initiated in 3 ways:
  1. First day start approach - start the OCs on the first day of the next menstrual cycle.
  2. Sunday start approach - first pill is taken on the first Sunday after the next menses begins. If menses begins Sunday, take on that day.
  3. Visit day start - take the first pill the day she receives the OCs. Pregnancy needs to be ruled out before this approach can be used.
- ◆ A back up method, such as condoms or foam, needs to be used for the first 7 days of pills, as the OC may not be fully protective against pregnancy during this time. A backup should also be used if she runs out of pills, stops taking them, misses pills, or has diarrhea or vomiting.
- ◆ Take one pill a day until the pack is finished, then:
  - if using a 28-day pack, begin a new pack immediately, skip no days between packs.
  - if using a 21-day pack, stop for 7 days, then start a new pack.
- ◆ Keep the OCs in a safe place, where she will be reminded to take it daily at approximately the same time every day. Associate pill taking with a daily routine, such as going to bed, brushing teeth, or eating a meal.

### **Dealing With Missed Pills**

Recent studies have shown that the most risky time to miss pills is at the beginning of the pack, right after the hormone free interval, or during the third week of active pills. During these times, there is an increased risk of ovulation and pregnancy. Missing a pill during week two of the cycle or any of the inert pills of the 28-day pack does not present a major concern (Youngkin and Davis, 1998).

Instructions for missed pills include (Hatcher et al., 1998):

- ◆ If one or more of the inert (reminder) pills of a 28-day pack are missed:
  - There is no increased risk for pregnancy and no back up method is needed.
  - Throw out the missed pills.
  - Keep taking 1 pill each day until the pack is finished.
  - Start the next pack on the usual day.
- ◆ If any of the 21-day hormonal pills are missed:
  - Use a backup method of contraception such as condoms or foam, even if a pill was taken as little as 12 hours late. A backup method must be used for 7 days or she must abstain from sex for 7 days.
- ◆ Getting back on schedule:
  - Less than 24 hours late:
    - take the missed pill right away
    - return to daily pill-taking routine and take the next pill at the usual time.
  - 24 hours late:
    - take both the missed pill and today's pill at the same time.
  - More than 24 hours late or 2 missed pills:
    - take the last pill that was missed immediately
    - take the next pill on time
    - throw out the other missed pills
    - take the rest of the pills in the pack on schedule.
- ◆ If a pill is missed during the third week of the cycle:
  - Finish the rest of the hormonal pills in the pack.
  - Do not take a week off pills if using a 21-day pack or do not take the reminder pills if using a 28-day pack.
  - Start a new pack as soon as the hormonal pills in the current pack are finished.
  - Advise that she might not have a period until the end of the second pack of pills, but missing a period is not harmful.

### **Follow-up**

A return visit is recommended after 2-3 complete pill cycles to reassess OC usage, compliance, side effects, satisfaction and any questions or concerns. After this, the adolescent should be seen at least every 6 months, depending on individual circumstances (Varney, 1998). STD checks should also be considered at follow-up visits. Evidence indicates that adolescents may require more frequent follow-up. Rapid access to a health care provider has been shown to increase compliance.

If a period is missed and the adolescent missed one or more pills, the pills should be discontinued and a pregnancy test done. Adolescents who consistently miss pills should consider

another method of contraception (Youngkin and Davis, 1998). Adolescents who are at high risk to get pregnant should be counseled to take prenatal vitamins, including folic acid.

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## **Appendix C**

### **Client Handout**

## **Information You Need to Know about using Oral Contraceptives “The Pill”**

### ***What are Oral Contraceptives (OCs)?***

- ◆ OCs are pills that contain hormones. All combined pills contain a form of estrogen and a form of progesterone. These two hormones are naturally produced in your body. They work together to control menstruation.
- ◆ OCs are the most popular form of birth control used by adolescents.

### ***Can any girl take them?***

- ◆ You may not be able to take the pill if you have certain conditions, such as heart problems, breast cancer, liver disease, blood clots, or are pregnant.
- ◆ This is why you need to be examined by a qualified health practitioner who can assess your risk and can prescribe the kind of pill that's right for you.

### ***How do Oral Contraceptives work?***

- ◆ The estrogen and progestin in the pill prevent pregnancy by changing the normal menstrual cycle in several ways:
  - stopping ovulation - the egg isn't released
  - making the fallopian tubes less able to transport an egg
  - thickening the mucus on the cervix so that sperm can't easily get through
  - thinning the lining of the uterus so that an egg can't be implanted

### ***How effective are they?***

- ◆ Used properly as prescribed, all OCs are at least 99% effective at preventing pregnancy.
- ◆ *This means that there is still a small chance of getting pregnant while taking the pill, even if you take it every day. The only 100% effective method of preventing pregnancy is abstinence.*

### ***What are the advantages and benefits of OCs?***

- ◆ They are easy to use, convenient, and safe. Being on the pill is safer than being pregnant.
- ◆ Lighter periods and less cramping.
- ◆ Periods are more regular and predictable.
- ◆ Less symptoms of PMS, such as mood swings, cramping, headaches, bloating.
- ◆ Improvement of acne.
- ◆ Protection against certain types of cancer and other medical conditions.



***What are the disadvantages?***

- ◆ You must remember to take a pill every day.
- ◆ They provide no protection against STDs, so condoms must still be used.
- ◆ A prescription is needed and a physical examination may be recommended.
- ◆ You may experience some unwanted side effects.

***What are the side effects?***

- ◆ Many girls experience no, or very mild, side effects. These vary from person to person and most are temporary and will wear off.
- ◆ Mild side effects include:
  - nausea or vomiting
  - abnormal bleeding or spotting
  - sore breasts
  - headaches
  - mood changes, depression
- ◆ If you experience any side effects that are very bothersome, are not going away, or are getting worse, see the health care practitioner that prescribed the OC. You may need to switch to a different type of pill or a different type of birth control.

***What are the more serious side effects to watch for?***

- ◆ For certain high risk women who take OCs, there is an increased risk of developing certain diseases, such as heart disease, certain cancers and infections, and liver disease.
- ◆ ***Danger signs*** - these are very rare, but call your health care practitioner immediately if you experience any of these:
  - A** Abdominal pain (severe)
  - C** Chest pain
  - H** Headaches (severe)
  - E** Eye problems (vision loss or blurring)
  - S** Severe leg pain, speech problems

***What about taking other medications?***

- ◆ There are some medications that make the pill less effective, such as some antibiotics, cold or allergy medicines, sedatives, and anticonvulsants. You may need to use another form of birth control while taking these medications.
- ◆ The pill can also increase or decrease the effects of certain medications.
- ◆ It is very important that you tell any health care practitioner that you see for any medical problem that you are taking the pill.

***How do you take the pill?***

- ◆ You need to find a way to remember to swallow a pill every day and at the same time every day. It's easier if you take it when you do another daily activity, such as brushing your teeth, going to bed, or eating a meal.
- ◆ Pills come in either 21 day or 28 day packs. The last 7 pills in a 28 day pack do not contain any hormones. They are there so that you stay in the habit of taking them.
- ◆ If you're using a 28 day pack, begin a new pack the day after you finish a pack.
- ◆ If you're using a 21 day pack, stop taking pills for 7 days after you finish the pack, then start a new pack.
- ◆ You should expect to get your period during the forth week (day 22 - 28).
- ◆ A back-up birth control method, such as condoms and foam, needs to be used for one week when you first start taking the pill.

***What if you forget?***

- ◆ If you miss taking one or more pills that contain hormones, you may ovulate and risk getting pregnant. Be sure to use another form of birth control for the rest of the pill pack.
- ◆ If you miss one pill, take it as soon as you remember. Take the next pill at the usual time.
- ◆ If you miss two or more pills, take the last pill that was missed immediately, take the next pill on time, and throw out the other missed pills. Keep taking the rest of the pills as usual.
- ◆ If you throw up or have diarrhea one to four hours after taking a pill, your body may not have absorbed the pill. Use another form of birth control for the rest of the pill pack.

***When should you return to see your health care practitioner?***

- ◆ A return visit is recommended after two to three complete pill cycles to check how things are going. After this, your health care practitioner will tell you when you should return.
- ◆ If you miss your period, you should have a pregnancy test done before you start a new pill pack.
- ◆ Anytime you have any concerns or questions, call or make an earlier appointment.

***Here is your health care practitioner's name and phone number:***

---

Health Care Practitioner

---

Phone Number

### **Consent Form for use of Oral Contraceptives**

I have chosen oral contraceptives as my method of birth control. I understand that the pill will protect me from getting pregnant, but not from STDs, so I need to use condoms as well.

I have been given instructions on how to use the pill, the benefits and risks, and I understand these instructions.

I will take one pill each day at this time: \_\_\_\_\_

I will keep the pills at this location: \_\_\_\_\_

\_\_\_\_\_  
Date

\_\_\_\_\_  
Client Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Health Care Practitioner Signature

## **Appendix D**

### **Slides of Overhead Presentation**

## **Teaching Guidelines for the Use of Oral Contraceptives by Adolescents**

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Sandy May

June, 2001

## **Case Scenario**

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- Tracey, 15 year old girl, presents with a request for birth control
- Sexually active for about a year
- Has had three partners, currently has had steady boyfriend for two months
- Uses condoms "most of the time"
- Given three months supply of Marvelon, briefly given instructions on how to use, and told to return in 3 months for follow-up

## **Case Scenerio (cont.)**

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- Comes back in two months for a pregnancy test, which is positive
- What happened?
- States the pills made her feel really nauseated and bloated, so she stopped taking them.
- How do we prevent this from happening to other teens?
- PROPER EDUCATION AND COUNSELLING

## **Health Care of Adolescents**

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- Adolescent Developmental Stages:
  - Early
  - Middle
  - Late
- Adolescent Sexuality
- Teen Pregnancy

## **Health Care of Adolescents**

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- Health Education - Counselling Adolescents
  - Health care providers should involve all adolescents in open discussions about sexual development and methods to prevent unintended pregnancy and STIs.
  - Contraceptive counselling needs to be individually tailored to the level of developmental and cognitive abilities of each adolescent.
  - Legal issues regarding prescribing OCs to minors without parental consent

## **Health Care of Adolescents**

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- Issues to be addressed:
  - Sexuality, relationships, safety, risk taking behaviors
  - Complete health history and physical exam
- Counselling regarding contraception:
  - Review female and male anatomy
  - Dispel any myths or misconceptions
  - Give information on all contraceptive methods
  - Use both oral and written instructions
  - Resources such as models, illustrations and handouts
  - Emphasize use of condoms for STI prevention
  - Counselling re: smoking cessation
  - Emergency contraception
  - Use of a teaching checklist and informed consent

## **Health Care of Adolescents**

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- **Development of a trusting relationship**
  - Confidentiality
  - Safe, non-threatening environment
  - Open, honest, non-judgemental communication
  - Repeated simple messages containing essential information
  - Problem solving techniques
  - Anticipatory guidance about side effects and their management
  - Frequent follow-up and monitoring
- **Benefits and outcomes of health education**
  - Prevention of unwanted pregnancies

## **Combined Oral Contraceptives**

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- **Mechanism of action**
- **Effectiveness**
- **Safety**
- **Advantages**
- **Non-contraceptive benefits**
- **Disadvantages**
- **Side effects and possible complications**
  - Drug interactions

## **Combined Oral Contraceptives**

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- **Warning signals**
  - A C H E S
- **Initiating pill use**
- **Dealing with missed pills**
- **Follow-up**

## **Client Handout**

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- **Use as a checklist to ensure all essential information is given**
- **Adolescent can take home as a reference**
- **Includes health care practitioner's name and phone number**
- **Consent form - contract**
  - Leave in client's chart
  - Optional

## **Appendix E**

### **Presentation Evaluation form**

**Teaching Guidelines for use of Oral Contraceptives by Adolescents  
Presentation Evaluation**

1. Please rate the following aspects of the presentation:

a) Length    ☐ poor    ☐ fair    ☐ good    ☐ very good    ☐ excellent

Comments: \_\_\_\_\_

b) Usefulness and relevance of information

☐ poor    ☐ fair    ☐ good    ☐ very good    ☐ excellent

Comments: \_\_\_\_\_

c) Contents - accurate and understandable

☐ poor    ☐ fair    ☐ good    ☐ very good    ☐ excellent

Comments: \_\_\_\_\_

d) Format and organization

☐ poor    ☐ fair    ☐ good    ☐ very good    ☐ excellent

Comments: \_\_\_\_\_

2. How likely are you to use these guidelines in your practice?

☐ very likely    ☐ probably    ☐ not sure    ☐ probably not    ☐ very unlikely

Comments: \_\_\_\_\_

3. How much do you think adolescents would benefit from the handout?

☐ very much    ☐ much    ☐ moderately    ☐ somewhat    ☐ not at all

Comments: \_\_\_\_\_

4. Any other comments?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Thank-you!



## **Appendix F**

### **Pretest and Posttest Questionnaires for Proposed Evaluation Project**

## Counseling Adolescents on the Use of Oral Contraceptives

### Questionnaire for Health Care Practitioners

This questionnaire is for health care practitioners who counsel adolescents about the use of oral contraceptives. Its purpose is to assess the practitioner's knowledge and experience with this intervention, their teaching methods used, and their satisfaction with their teaching methods.

All answers will remain confidential.

1. What is your professional background?

- ☐ Public Health Nurse  
☐ Primary Care or Clinic Nurse  
☐ Physician  
☐ Other, please specify: \_\_\_\_\_

2. How many adolescents (ages 11 to 21) do you normally teach/counsel individually about the use of oral contraceptives per month on average?

☐ 0 - 2    ☐ 3 - 5    ☐ 5 - 10    ☐ >10

3. What information do you include when teaching/counseling adolescents about the use of oral contraceptives?

	<u>Always</u>	<u>Sometimes</u>	<u>Never</u>
• Anatomy and Physiology	_____	_____	_____
• Sexuality	_____	_____	_____
• Safety issues	_____	_____	_____
• Information on all contraceptive methods	_____	_____	_____
• OC information:			
• mechanism of action	_____	_____	_____
• effectiveness and safety	_____	_____	_____
• advantages and non-contraceptive benefits	_____	_____	_____
• disadvantages, side effects, and complications	_____	_____	_____
• warning signals	_____	_____	_____
• how to initiate pill use	_____	_____	_____
• dealing with missed pills	_____	_____	_____
• follow-up	_____	_____	_____
• Other, please specify _____	_____	_____	_____

4. How confident are you in your knowledge of counseling adolescents about the use of OCs?

\_\_\_\_\_ very confident    \_\_\_\_\_ moderately confident    \_\_\_\_\_ not very confident

Please Comment: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

5. How did you obtain the information that you teach? (Check all that apply)

\_\_\_\_\_ from basic training  
 \_\_\_\_\_ from co-workers  
 \_\_\_\_\_ written guidelines  
 \_\_\_\_\_ current literature, such as textbooks, journal articles  
 \_\_\_\_\_ client information, such as pamphlets or booklets  
 \_\_\_\_\_ information from organizations dealing with family planning such as SERC  
 \_\_\_\_\_ other please specify: \_\_\_\_\_  
 \_\_\_\_\_

6. What teaching methods do you use when teaching/counseling adolescents about use of OCs?

	<u>always</u>	<u>sometimes</u>	<u>never</u>
• giving information orally	_____	_____	_____
• using charts, diagrams, pictures, or models	_____	_____	_____
• using samples of pill packs	_____	_____	_____
• videos or slides	_____	_____	_____
• giving handouts or pamphlets to take home	_____	_____	_____
• other, please specify: _____	_____	_____	_____

7. How satisfied are you with the teaching methods that you currently use?

\_\_\_\_\_ very satisfied    \_\_\_\_\_ moderately satisfied    \_\_\_\_\_ unsatisfied

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Thank You!**

Code \_\_\_\_\_

**Evaluation of Oral Contraceptive Teaching Guidelines**

Please complete this questionnaire after the trial period of using the OC guidelines.

1. How many adolescents did you teach/counsel about the use of OCs during the trial period?  
\_\_\_\_\_

2. Were the guidelines used during these interventions?

\_\_\_\_\_ always \_\_\_\_\_ sometimes \_\_\_\_\_ never

If sometimes or never used, please state reasons: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Please rate the following aspects of the guidelines:

a) Length

too short   about right   too long

- professional version
- client handout

_____	_____	_____
_____	_____	_____

Comments: \_\_\_\_\_  
\_\_\_\_\_

b) Language level

too high   about right   too low

- professional version
- client handout

_____	_____	_____
_____	_____	_____

Comments: \_\_\_\_\_  
\_\_\_\_\_c) Contents - accurate and understandable   Excellent   very good   good   fair   poor

- professional version
- client handout

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Comments: \_\_\_\_\_  
\_\_\_\_\_

d) Format and organization      Excellent    very good    good    fair    poor

- professional version
- client handout

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Comments: \_\_\_\_\_  
 \_\_\_\_\_

e) Usefulness and relevance of information    Excellent    very good    good    fair    poor

- professional version
- client handout

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Comments: \_\_\_\_\_  
 \_\_\_\_\_

4. What changes would you recommend to improve the guidelines?

Professional version: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Client Handout: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

5. Since using the guidelines, what information do you now include when teaching adolescents about the use of oral contraceptives?

	<u>Always</u>	<u>Sometimes</u>	<u>Never</u>
• Anatomy and Physiology	_____	_____	_____
• Sexuality	_____	_____	_____
• Safety issues	_____	_____	_____
• Information on all contraceptive methods	_____	_____	_____
• OC information:			
• mechanism of action	_____	_____	_____
• effectiveness and safety	_____	_____	_____
• advantages and non-contraceptive benefits	_____	_____	_____
• disadvantages, side effects, and complications	_____	_____	_____
• warning signals	_____	_____	_____

- how to initiate pill use \_\_\_\_\_
- dealing with missed pills \_\_\_\_\_
- follow-up \_\_\_\_\_
- Other, please specify \_\_\_\_\_

6. Since using the guidelines, how confident are you in your knowledge of counseling adolescents about the use of OCs?

\_\_\_\_\_ very confident    \_\_\_\_\_ moderately confident    \_\_\_\_\_ not very confident

Please Comment: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

7. Since using the guidelines, have you changed your teaching methods?

\_\_\_\_\_ yes    \_\_\_\_\_ no

If yes, in what way? \_\_\_\_\_  
 \_\_\_\_\_

If no, why not? \_\_\_\_\_  
 \_\_\_\_\_

8. How satisfied are you now in your teaching methods used?

\_\_\_\_\_ very satisfied    \_\_\_\_\_ moderately satisfied    \_\_\_\_\_ unsatisfied

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

9. Any other comments? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Thank You!**

Your feedback will be valuable in the revision of the guidelines.