

Factors Affecting Adherence to Oral Contraceptives

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Abstract

Objectives: This review paper attempts to identify various factors that affect adherence to oral contraceptives (OCs)

Methods: We have searched related articles in the following data base through Google scholar advanced Google Scholar, the Cochrane Library, Pubmed, hinari, a Pop Line, Scopus, Science direct, the Cochrane register of Controlled Trials, and Medline. To identify factors affecting adherence to OCs and their association with contraceptive continuation.

Results: Many factors influence adherence to OCs. Factors that affect contraceptive failure rates and probabilities reported in the literature can be divided into three categories: Patient-related factors, factors related to health care providers and factors related to health care system.

Conclusion: More rigorous research is needed to understand factors affecting adherence to OCs continuation as well as, Counseling services should be expanded to address physical, social and emotional needs to improve continuation. Moreover, interventions to improve adherence and health system factors that prevent clients from using family planning consistently and effectively should also be addressed.

Key words: Factors, Oral contraceptives, Adherence and Compliance

Introduction

The degree to which patients act in accordance with the advice or instructions of their health care provider is termed adherence or compliance ⁽¹⁾. These terms are commonly used interchangeably, even though the former terminology may be preferred because of its more positive connotations ⁽²⁾. The term “compliance” has fallen into disfavor and has often been replaced with “adherence,” which more aptly describes medication-taking behavior from the patient’s perspective. One of the most often quoted definitions of adherence is “the extent to which a person’s behavior coincides with medical or health advice ⁽³⁾. Compliance may be defined as an act of acquiescence ⁽⁴⁾. The issue of adherence to oral contraceptives (OCs) is in many ways similar to that faced by clinicians attempting to treat chronic disorders,

since the medication must be taken on a long-term basis. Treatment regimens may be complicated, inconvenient, and expensive, and it is not difficult to imagine why adherence problems occur. ⁽⁵⁾

Oral contraceptive (OC) pills are the most popular hormonal method chosen by adolescents, and are extremely effective in preventing pregnancy ⁽⁶⁾. OCs work primarily by suppressing ovulation with varying levels of estrogen and progestin. The effectiveness rates vary based on the hormone levels in a particular pill and the woman’s physiologic make-up. With consistent use on a regular daily routine the effectiveness rates are 99.5–99.9% in avoiding pregnancy; with typical use OCs are 97% effective in preventing pregnancy, yielding a failure rate of 0.5–3.0% ⁽⁷⁻⁹⁾. There is a high level of public awareness and acceptance of OCs, which

may increase a woman's desire to use them, Women who choose OCs enjoy a high level of efficacy and safety, ease of reversibility^(1,3), Other advantages are the menstrual changes of less bleeding, fewer cramps, and fewer instances of hirsutism from androgen suppression. Acne is improved while using the combined OC pill that lowers testosterone levels. While some protection from pelvic inflammatory disease may be credited to the pill. ⁽²⁻⁶⁾. It has been noted that there is a decrease in the incidence of ovarian cysts secondary to decreased levels of luteinizing hormone and follicle-stimulating hormone. Ectopic pregnancies also occur less frequently in these users secondary to ovulatory suppression. Furthermore, studies have cited a decreased incidence of endometrial and ovarian cancers with increased duration of OC use^(4, 10). The two major disadvantages historically associated with OCs use were the increased incidence of thrombophlebitis and pulmonary embolism from hypercoagulability and cardiovascular disease including hypertension. These were attributed to the high estrogen levels in the earlier OCs. With the advent of combined oral contraceptives and lower hormonal doses, these and other side effects have decreased significantly ⁽⁵⁾. Nausea, vomiting, abnormal menstrual bleeding, headaches, enlarged breasts, weight gain, decreased libido, and mild depression have been cited as some trouble some side effects that could discourage a woman from using OCs. ⁽⁷⁾. It has also been shown that the majority of women who discontinue use of OCs do so because of side effects such as weight gain, irregular bleeding, and hair growth ⁽⁶⁾. Cessation of OCs secondary to side effects and the subsequent nonuse of another contraceptive method has accounted for 20% of the annual unintended pregnancies in the United States ⁽¹¹⁾. Other OCs disadvantages may include cost of the medication, the need for frequent follow-up visits with the health care provider, little partner involvement, and a daily dosing regimen, in addition It has been shown that OCs demand strict adherence to the method to have maximum efficacy. more important thing is taking the pill without missing ,when woman misses one or more pills

per cycle is three times more likely to become pregnant than a woman who takes her pills consistently⁽⁷⁾. It is the health care provider role and responsibility to discuss all of these advantages and disadvantages openly, clearly, and at the patient's level of understanding to give complete disclosure of OCs ^(7, 10).

Materials and Method

The methodology used in this paper consisted of collecting peer-reviewed articles, publications and project reports, with focus on adherence and continuation of contraceptive regimens, the search strategy involved the use of the following data bases: Google scholar advanced Google Scholar, the Cochrane Library, Pubmed, hinari, a Pop Line, Scopus, Science direct, the Cochrane register of Controlled Trials, and Medline.

Results and Discussion

Many factors influence adherence to OCs. Factors that affect contraceptive failure rates and probabilities reported in the literature can be divided into three categories:

1. Patient-related factors.
2. Factors related to health care providers
3. Factors related to health care system.

1. Patient-related factors:

The majority of the studies employ patient perspective model. Of these, factors most commonly associated with non adherence with OCs are side effects such as breakthrough bleeding, spotting, nausea, heavy periods, and amenorrhea. Women with these side effects are significantly more likely to miss one or more pills each monthly cycle than women who do not. ^(6, 7). Many different issues affect patient adherence with oral contraceptive method and they are important to consider in the total patient care picture. Table 1 identifies many of different issues that affect patient adherence to OCs.

Table 1: Patient factors affecting adherence to OCs (8, 9-11)

Patient lifestyle, religious beliefs, socioeconomic status.
The personal desire to adhere.
Underlying medical problems that may affect the possibility of adherence.
Patient knowledge of a contraceptive method and its efficacy and how pregnancy occurs.
Level of patient error that can exacerbate nonadherence.
Contraceptive method side effects may be misdiagnosed as problems when they may be from nonadherence.
Patient's personal reasons for adherence versus nonadherence.
The cost(s) of a specific contraceptive method and visits to the health care provider(s).
Partner support of and involvement with the patient's choice(s) and use of contraceptive as prescribed.

2. Factors related to the health care providers:

Health care providers should educate women to critically evaluate which contraceptive method is best for her based on her cultural and religious beliefs, background, individual desires and needs, and the probability of method adherence, address contraceptive method(s) side effects as a possible nonadherence issue. Instruct the patient and individualize the information regarding the correct use of the contraceptive method. Evaluate the woman's understanding of the material and her desire to use the method correctly, address any fears about contraceptive method(s) that the patient may have. Use culturally sensitive materials, provide clear, relevant, and easy to understand written material regarding the proper use of a contraceptive method and what to do if the method is used incorrectly; provide a telephone number to call with other concerns and questions. Furthermore, the providers should make sure patient has a follow-up appointment scheduled and that his/her office has a method of reminding the patient of her upcoming appointment, make sure the time, date, and place are convenient for the patient. Reinforce positive behaviors (e.g., using the method correctly and adhering to the prescribed regimen⁽¹²⁻¹⁹⁾). In addition there is another approach hypothesizes that the interaction between patient and provider is one of the primary determinants of adherence.⁽²⁰⁾ The degree to which a patient participates

in discussion when visiting the physician, the attitude of the physician (friendly or antagonistic), the quality of communication and information provided by the physician are all components of this interaction and are potential determinants of patient adherence.⁽²¹⁻²³⁾

Pharmacists have also essential role and can be recruited to increase adherence by provide advice and guidance to patients on how to manage their OCs. The role may include the use of educational tools and the recognition of medication discrepancies^(24, 25), telephone counseling service, educational programmers and follow-up visit⁽²⁶⁾, education plus icon labeled medication containers plus therapeutic monitoring or the provision of collaborative care by pharmacists⁽²²⁾ agree that pharmacists' involvement was beneficial as they helped to augment adherence with medication. Clinicians are the focal point for improving oral contraceptive adherence. They should focus counseling on the transience of most side effects, instructions on dealing with a missed pill, provision of a backup method, and establishment of a daily pill-taking routine, and easy-to-understand literature should be given to patients to take home⁽²¹⁾. There is enough evidence to show that when clients are treated with care and respect and when their needs are met by service providers, they will be more satisfied with the service; come back and refer their family and friends to that clinic, research has

shown that good client–provider interaction is associated with increased client knowledge and satisfaction with services ⁽²⁶⁾. Moreover, the medical literature shows that good client–provider interaction is associated with increased adherence with medical regimens and with better ⁽²⁵⁾ health outcomes. One contributor to poor communication between providers and patients about contraceptive methods may be that providers have incomplete knowledge of evidence-based information about contraceptive methods. This is particularly relevant currently, as there has been a rapid expansion of contraceptive technology in the past decade ⁽²⁵⁾ In 2004, the World Health Organization released updated eligibility criteria for contraceptive use and included recommendations for general practices and counseling, stating that “ counseling is a key element in quality of care and is also an important part of both initiation and follow-up visits and should respond to clients’ needs not only in contraception but also related to sexual transmitted diseases”. In addition to appropriate contraceptive counseling, other strategies for ensuring contraceptive success include removing barriers to use — such as waiting periods and prerequisite screenings usually associated with provision of hormonal methods ⁽²²⁾

3. Factors related to the public health system:

From a public health perspective, continued and consistent use of contraception would result in fewer cases of unplanned and unwanted pregnancy and lower incidence of unsafe abortion, a major cause of maternal morbidity and mortality in many developing countries⁽²⁷⁾. In order to increase adherence, public health system can establish Strategies for reducing patient costs by improving insurance (expanding coverage for contraceptive care and expanding public insurance to include the uninsured)

A related approach, changing insurance reimbursement to allow for more counseling time, was considered important, increasing initial counseling time to help choose methods was essential , furthermore public sector can Improve access to the services of oral contraceptives and it consider the second most frequent general response, The diverse responses in this category ranged from offering well trained staff, more office hours or walk-in service to providing low-cost contraceptives

and having contraceptive samples. The third most frequent response was to provide better follow-up care. A majority of these responses included suggestions for improving communication between patient and provider, spending more time with the patients and better understanding to individual patient circumstances are added very important value to increase adherence and continuation to oral contraceptives. Other respondents in public health center they can afford wrote materials that may help providers to improve their counseling on particular topics such as how to use methods, side effects, different method options available, and patient concerns and solutions. Improving access was the most frequently mentioned strategy, such topics as lowering the cost of contraceptives for patients, providing better insurance coverage for patients can be used in public sector. Topics related to improving education, such as public service announcements, printed educational materials or manufacturer-provided inserts also are important to improve adherence. Beyond improving access and patient education, other individuals, such as partners, parents and pharmacists, should be more involved in patients’ contraceptive care in public area.

Providers in health centers and clinics, especially private ones, report that insurance reimbursement is a barrier to providing counseling, at least 46% of private providers and at least 21% of public providers reported that changing insurance reimbursement to allow more time for counseling was very important. The fact that private providers are more likely than public providers to report counseling reimbursement as a problem is consistent with their being more dependent on insurance payments for the majority of their clients, Public sector and other committee, can successfully set guidelines for their own members and workers so as to lead them in innovation and standard setting for the wider field of contraceptive service providers. Private providers who provide contraceptive services, but are outside the scope of that group, could benefit by receiving more information about newer protocols as well as some of the more standard tools for counseling and education used by non-physician staff ⁽²⁸⁾. In addition, more research is needed on the impact of supplementing client–provider communication with other sources of patient information such as handouts and Internet websites.

Moreover, there are clearly structural differences between providers that are associated with what services a patient receives. Private providers, who are typically medical doctors, usually rely on their own clinical judgment about what services to offer a particular client, based on her particular needs. However, because they are generally reimbursed only for specific medical services rendered during a visit, they may have incentives to tailor their care and to limit counseling services that are generally inadequately reimbursed. On the other hand, clinicians at publicly funded clinics, who are typically nurse practitioners or medical assistants, usually follow a standard set of service delivery protocols that have been developed by a medical director and are designed to provide the full range of available services to the majority of clients. The existence of such protocols may also contribute to prove that the clients receive the care prescribed, even if actual practice differs somewhat from the protocols ⁽²²⁾

This review discussed-in these section- approaches related to accessibility and financing of services and to improvement the counseling practices and service delivery protocols available to all women seeking contraceptive care. Additional research is needed to evaluate the effectiveness of specific practices and to assess the outcomes associated with the practices of different types of contraceptive service providers.

Limitations of this study include the use of a convenience sample of providers at meetings of national medical specialty organizations. This bias would likely result in an underestimate of the number of subjects answering questions incorrectly, as providers at these meetings and those willing to volunteer for research may be more informed about evidence-based practice than the general population of providers. Additionally, this study focused on seven specific questions about contraceptive care and did not address all relevant issues in this area. Further research would help illuminate the topics most important for integration into medical education.

Conclusion

Many factors influence adherence to OCs. Factors that affect contraceptive failure rates and probabilities reported in the literature can be divided into three categories: Patient-related factors, factors related to health care providers and factors related to health care

system.

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