ELSEVIER

Contraception 81 (2010) 133–139

Contraception

Original research article

Bridging emergency contraceptive pill users to regular contraception: results from a randomized trial in Jamaica☆

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Received 17 June 2009; revised 26 August 2009; accepted 30 August 2009

Abstract

Background: Emergency contraception research has shifted from examining the public health effects of increasing access to emergency contraceptive pills (ECPs) to bridging ECP users to a regular contraceptive method as a way of decreasing unintended pregnancies.
Study design: In a randomized controlled trial in Jamaica, we tested a discount coupon for oral contraceptive pills (OCPs) among pharmacy-based ECP purchasers as an incentive to adopt (i.e., use for at least 2 months) this and other regular contraceptive methods. Women in the intervention and control arms were followed up at 3 and 6 months after ECP purchase to determine whether they adopted the OCP or any other contraceptive method. Condom use was recorded but was not considered a regular contraceptive due to its inconsistent use.
Results: There was no significant difference in the proportion of women who adopted the OCP, injectable or intrauterine device in the control group or the intervention group (p=.39), and only 14.6% of the sample (mostly OCP adopters) used one of these three methods. Condom use was high (44.0%), demonstrating that ECP users were largely a condom-using group.
Conclusions: The discount coupon intervention was not successful. Although a small proportion of ECP users did bridge, the coupon did not affect the decision to adopt a regular contraceptive method. The study highlighted the need for bridging strategies to consider women's reproductive and sexual behaviors, as well as their context. However, in countries like Jamaica where HIV/AIDS is of concern and condom use is appropriately high, bridging may not be an optimal strategy.

Keywords: Randomized controlled trial; Emergency contraception; Oral contraception; Contraceptive bridging; Jamaica

1. Introduction

Emergency contraceptive pills (ECPs) have been shown to be an effective back-up method for birth control after unprotected sex. However, use of ECPs has not had a public health impact; a recent systematic review revealed that despite interventions to increase access to ECPs, no decrease in abortion or pregnancy rates has been documented [1], prompting a meeting of technical experts in July 2006 to discuss the next steps. Among the topics discussed in this meeting was the potential indirect effect of reducing unintended pregnancies by transitioning ECP users to other methods. Thus, efforts to decrease unintended pregnancies have now turned to promoting the use of more effective contraceptive methods among ECP users [2]. This approach, borrowing from Trussell et al. [3], has been dubbed "bridging," as it encourages women to cross over or transition from ECPs to ongoing contraceptive use.

The concept of bridging has emerged at a time when many developing countries allow over-the-counter provision of ECPs [4]. Therefore, ECPs are very likely obtained in pharmacies more often than in clinics, as even 80% of the International Planned Parenthood Federation's distribution of ECPs is made through commercial retail outlets (Hodgson M., personal communication, 2008). Anecdotal accounts of widespread and repeated use of ECPs have accompanied the increased over-the-counter availability of ECPs in pharmacies. With estimates of 74–85% effectiveness [5] of progestin-only formulations, reports of repeated use or use of

☆ The work on which this article is based was funded by the William and Flora Hewlett Foundation.

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doi:10.1016/j.contraception.2009.08.015

ECPs as a main method of contraception are worrisome. Thus, bridging the ECP user to a more effective method of contraception, such as pills or injectables, could lead to a reduction in unwanted pregnancies.

We conducted a study in Jamaica that promoted bridging in pharmacies where most women obtained the only dedicated ECP product at that time, Postinor-2® (hereafter referred to as Postinor; 0.75 mg of levonorgestrel in each tablet), in addition to 21 brands of regular oral contraceptive pills (OCPs). The goal was to encourage women to adopt a more effective ongoing contraceptive method with the incentive of a discount coupon for one cycle of OCPs. Only one cycle of OCPs was discounted, as the Jamaican distributor of Postinor would be willing to continue that level of discount beyond the life of the study, assuming that the intervention proved successful. The coupon intervention focused on OCPs because they are the second most prevalent method of contraception in Jamaica and are available over-the-counter in pharmacies where most ECP users obtain Postinor. The coupon excluded condoms, as their relatively low cost (and already high use as the most prevalent method) would provide little incentive for ECP users to switch to this method.

Shortly after the Jamaican government removed the prescription-only requirement for Postinor in 2003, pharmacists went on record as opposing the government's decision and recounted instances of repeated and inappropriate use of the product. Thus, pharmacists and other stakeholders were interested in testing interventions to reduce the repeated use of ECPs and in documenting the frequency of repeat ECP purchases. A collaborative partnership with officials from the Pharmaceutical Society of Jamaica, the National Family Planning Board, Medimpex Jamaica, Ltd. (the distributor of Postinor and three OCP brands in the private sector), and with research staff from HOPE Enterprises, Ltd. (a marketing research firm in Jamaica) and Family Health International (FHI) was formed to look into this issue.

2. Materials and methods

2.1. Study design

The study was designed as a multisite randomized controlled trial. Twenty-one pharmacies in Kingston, Jamaica (a subset of high-volume sellers of Postinor identified by Medimpex) participated in the study. Postinor purchasers were assigned to the control or intervention (coupon recipient) group within each pharmacy and administered a brief interview. The completed intercept interviews were subsequently examined in the offices of HOPE Enterprises to identify and assemble contact information for women who were eligible for follow-up. In both study groups, women who were not already using an ongoing method of contraception consistently were followed up 3 and 6 months later to assess contraceptive use.

The primary objective of the study was to determine whether provision of the discount coupon resulted in a higher adoption of a contraceptive method among ECP clients who were not already using a family planning method consistently compared to their counterparts who did not receive a discount coupon. Adoption was defined as continuous use of OCPs for at least 2 months. Although the coupon specifically discounted oral contraceptive products available in a pharmacy, it could also serve as a first step to encourage the adoption and long-term use of any ongoing contraceptive method obtained from the private or public sector. Therefore, we also counted two consecutive injectable contraceptive administrations (or intention to obtain the second injection) and retention of an intrauterine device (IUD) for at least 1 month as adoption of an ongoing or regular contraceptive method. Thus, for the purpose of this study, an ongoing contraceptive method (henceforth referred to as regular method) is a method employed for the prevention of pregnancy and used before the sexual act occurs and — in the case of these three methods — is independent of coitus. We excluded condoms in this definition because a pilot study we conducted prior to trial initiation documented that women who self-identified as habitual users of condoms did not use this method consistently over the last 3 months.

The secondary objective was to document the frequency of ECP purchase by study participants.

2.2. The discount coupon intervention

A business-size card, made from card stock for durability, served as the coupon. At the time of the study, the prices of the 21 pill brands in pharmacies ranged from US$1.39 to US $12.55 for one cycle (exchange rate US$1=J$65). Prices between US$5 and US$8 for a cycle of OCPs were considered reasonable and affordable for the typical pharmacy client and were cheaper than the price of one pack of Postinor at over US$10 at that time (lower-income women tended to patronize public health clinics where ECPs, while not as conveniently or readily accessed, are available at subsidized or no cost).

The coupon discount ranged from 3% to 27% off all pill brands. However, for Medimpex's three oral contraceptive products, the discount was set at 13–20%, established during negotiations with the first author as part of a collaborative effort to build on the sustainability of the coupon intervention by a local stakeholder. The coupon's expiration date gave participants between 2 1/2 and 4 months (depending on the time of recruitment) to redeem the coupon. On the reverse side of the coupon, we included a message that urged women to use condoms, as OCPs do not provide protection against sexually transmitted diseases.

2.3. Sample size

We estimated that we would need to intercept a minimum of 800 clients to obtain at least 80% power to detect an increase of at least 10% in the adoption of a regular