Strategies to improve adherence and acceptability of hormonal methods of contraception

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Findings of the review: This review assessed the effectiveness of supplementary counselling techniques versus routine family planning counselling to improve adherence to, and continuation of, hormonal contraception. Nine randomized controlled trials (RCT) were included; five involved direct person-to-person counselling, four used intensive reminder interventions (three utilized text messaging and one employed a mail and telephone system). Outcomes measures included discontinuation/reason for discontinuation, number of missed pills or on-time injection, and pregnancy. The eligible studies for this review included only oral pills and depot-medroxyprogesterone acetate (DMPA), although one study also included the contraceptive patch. Three trials showed a positive effect of the intervention. One direct counselling study showed that participants were less likely to discontinue DMPA by 12 months, and were less likely to discontinue the method secondary to menstrual abnormalities. Another study revealed that intensive counselling complemented by phone call follow-up was more likely to result in consistent use of oral pills at three months, but not at 12 months. A trial which tested daily text messaging reminders to take the pill plus other pill-related information showed that this intervention was associated with higher continuation rates at six months, and there was a lower likelihood that users would experience interruption in pill use longer than seven days. Several of the studies had small sample sizes and six trials had greater than 20% loss to follow-up. Four trials relied on self-reports as opposed to objective outcome measures. There was substantial variation in the type and intensity of interventions. The overall quality of evidence was graded as moderate.

Implementation: Enhanced counselling and intensive reminder systems may improve adherence to, and continuation of, hormonal contraception. More high-quality trials are needed to identify more effective strategies among available options to support continued use of hormonal contraceptives.

Cochrane review


Abstract

Worldwide, hormonal contraceptives are among the most popular reversible contraceptives. Despite their high theoretical effectiveness, typical use results in much lower effectiveness. In large part, this disparity
reflects difficulties in adherence to the contraceptive regimen and low rates for long-term continuation.

The intent was to determine the effectiveness of ancillary counseling techniques to improve adherence to, and continuation of, hormonal methods of contraception.

Through August 2013, we searched computerized databases for randomized controlled trials (RCTs) comparing client-provider interventions with standard family planning counseling. Sources included CENTRAL, MEDLINE, EMBASE, POPLINE, ClinicalTrials.gov and ICTRP. Earlier searches also included LILACS, PsycINFO, Dissertation Abstracts, African Index Medicus, and IMEMR.

We included RCTs of an intensive counseling technique or other client-provider intervention compared to routine family planning counseling. Interventions included group motivation; structured, peer, or multi-component counseling; and intensive reminders of appointments or next dosing. Outcome measures were discontinuation, reasons for discontinuation, number of missed pills or on-time injections, and pregnancy.

One author evaluated the titles and abstracts from the searches to determine eligibility. Two authors extracted data from the included studies. We calculated the Mantel-Haenszel odds ratio (OR) for dichotomous outcomes. For continuous variables, the mean difference (MD) was computed; RevMan uses the inverse variance approach. For all analyses, 95% confidence intervals (CI) were also computed. Since the studies identified differed in both interventions and outcome measures, we did not conduct a meta-analysis.

Nine RCTs met our inclusion criteria. Five involved direct counseling; of those, two also provided multiple contacts by telephone. Four other trials provided intensive reminders, two of which also provided health education information. Three trials showed some benefit of the experimental intervention. In a counseling intervention, women who received repeated structured information about the injectable depot medroxyprogesterone acetate (DMPA) were less likely to discontinue the method by 12 months (OR 0.27; 95% CI 0.16 to 0.44) than women who had routine counseling. The intervention group was also less likely to discontinue due to menstrual disturbances (OR 0.20; 95% CI 0.11 to 0.37). Another trial showed a group with special counseling plus phone calls was more likely than the special-counseling group to report consistent use of oral contraceptives (OC) at 3 months (OR 1.41; 95% CI 1.06 to 1.87), though not at 12 months. The group with only special counseling did not differ significantly from those with standard care for any outcome. The third trial compared daily text-message reminders about OCs plus health information versus standard care. Women in the text-message group were more likely than the standard-care group to continue OC use by six months (OR 1.54; 95% CI 1.14 to 2.10). The text-message group was also more likely to avoid an interruption in OC use longer than seven days (OR 1.53; 95% CI 1.13 to 2.07).

Only three trials showed some benefit of strategies to improve adherence and continuation. However, several had small sample sizes and six had high losses to follow up. The overall quality of evidence was considered moderate. The intervention type and intensity varied greatly across the studies. A combination of intensive counseling and multiple contacts and reminders may be needed to improve adherence and acceptability of contraceptive use. High-quality RCTs with adequate power and well-designed interventions could help identify ways to improve adherence to, and continuation of, hormonal contraceptive methods.

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