Contraceptive compliance lags behind the science

Anna Glasier

Courtesy of Anna Glasier

The causes underlying unintended pregnancies are many and complex. But there is no doubt that the vast majority could be prevented by contraceptives that are already available and easily accessible. People just need to stick with them.

The pill is very effective. Only 1 in 1,000 women will get pregnant while taking the oral contraceptive if used perfectly. In reality, however, typical use is imperfect, and as a result nearly 1 in 10 women conceive while on the pill[1].

The main problem is that many people, at least some of the time, use contraception inconsistently or incorrectly. For example, a US study that electronically tracked pill usage among more than 100 women showed that over half of them missed three or more pills in a month, despite self-reporting to the contrary.

Recognizing these facts, in the 1990s a number of scientists, including me, became convinced that emergency contraception—defined as any drug or device that can prevent pregnancy after unprotected intercourse—was the solution to lowering the numbers of unintended pregnancies and abortions, at least in developed countries.

Emergency contraception—better known as the 'morning-after pill', even though the drug can be taken up to 72 hours after sex—is now available in many countries, including the US, without a doctor's prescription. Yet emergency contraceptive use remains disappointingly low. Among women having an abortion, only 1% in the US, 3% in Sweden, 9% in France and 12% in the UK had tried to prevent the pregnancy with emergency contraception[2]. In the US, price is a deterrent—Plan B, the most commonly used form of the drug, costs upwards of $50 at most pharmacies. But even in countries where emergency contraception is free (such as the UK) or very cheap (such as France), most women still don't use it after having unprotected sex.

Aiming to increase uptake, my colleague David Baird and I designed a pilot study in 1998 in which we gave more than 500 women in Edinburgh a supply of readily available emergency contraception to keep at home. The results were promising: nearly half of the women used it at least once, compared to only a quarter of the 500 women who did not have the drugs at hand[3].

Further studies confirmed that women with advanced provision of emergency contraception took the drug more often and sooner after intercourse, when it is almost certainly more effective. To our disappointment, however, increased and faster use had no effect on rates of abortion and unintended pregnancy[4].

The reasons remain unclear. One might speculate that women take more risks if they have emergency contraception nearby, but advance provision did not lead to increased frequency of unprotected sex or changes in contraceptive methods. Thus, it's likely that many women, regardless of whether they had easy access to emergency contraception, simply failed to recognize or acknowledge that they had put themselves at risk of pregnancy. In the end, we had to conclude that emergency contraception is not the magic answer to rising abortion rates.

So what can be done to improve contraceptive compliance? Contraceptive drugs need to be easy to adhere to, and women—and men—need to be be convinced to use the drugs consistently. In the absence of any genuinely new forms of birth control, it is necessary to encourage the use of other existing methods that are known to be highly effective, because, unlike the pill, they cannot be used improperly.

Researchers have attributed recent declines in teenage pregnancy rates in the US to increased use of the contraceptive injection Depo-Provera. The injection lasts for three months—precluding the need to take a pill every day or use a condom with every episode of sex—but even this method involves four visits a year to a clinic. In contrast, contraceptive implants and intrauterine devices (IUDs) or intrauterine systems (IUSs) last for three to 12 years and require no further action during that time. In other words, their use can only be perfect.

Evidence that these very long-acting reversible contraceptives really do lower unintended pregnancy rates is growing. Californian women receiving a copper IUD after an abortion had one third the rate of repeat abortions than women using other methods, including the pill[5]. Teenage mothers were far less likely to have a second pregnancy if they used an implant rather than pills or condoms[6].

Although the rate of use of long-acting methods is higher in some countries—in Scandinavia, for example, 15% of women use IUDs or IUSs—many countries have a long way to go. The trouble is that many women simply don't like the idea of implants or IUDs. Some women don't want 'something inside them', many don't like the pelvic examinations needed for IUD insertion and others have heard exaggerated reports of problems with these methods.

It's likely that many women, regardless of whether they had easy access to emergency contraception, simply failed to recognize or acknowledge that they had put themselves at risk of pregnancy.

Above all, women prefer to use methods they are familiar with. If you don't know anyone who uses a contraceptive implant, then you are unlikely to be comfortable with the idea of using it yourself. Hopefully, as the long-acting methods become more common, they will become less scary. In the meantime, many women continue to take the pill—the method they know best. After all, it has been around for 50 years.

Anna Glasier is the director of family planning and well woman services at National Health Service Lothian in Edinburgh. She holds honorary professorships at the Universities of Edinburgh and London and advises the Population Council, the World Health Organization and many pharmaceutical companies about contraception, including those offering emergency contraception and IUDs.

1. Trussell, J. in *Contraceptive Technology* 19th edn. (eds. Hatcher, R.A. *et al.*) Ch. 27, 747–826 (Ardent Media, New York, 2007).
2. Glasier, A. *BMJ* **333**, 560–561 (2006).
3. Glasier, A. & Baird, D. *N. Eng. J. Med.* **339**, 1–4 (1998).
4. Polis, C.B., *et al. Obstet. Gynecol.* **110**, 1379–1388 (2007).
5. Goodman, S., Hendlish, S.K., Reeves, M.F. & Foster-Rosales, A. *Contraception* **78**, 143–148 (2008).
6. Darney, P.D., Callegari, L.S., Swift, A., Atkinson, E.S. & Robert, A.M. *Am. J. Obstet. Gynecol.* **180**, 929–937 (1999).