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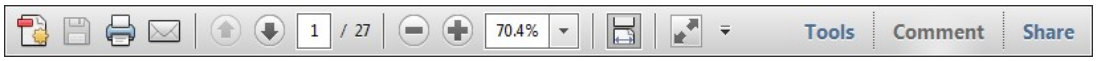

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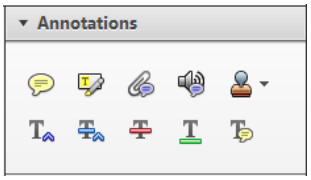

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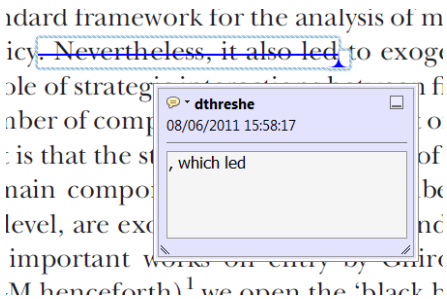

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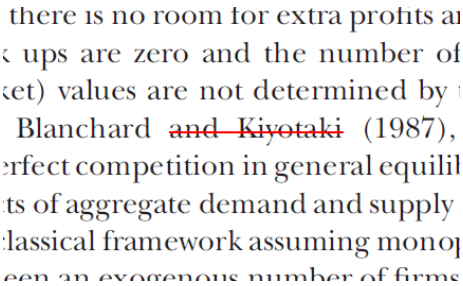

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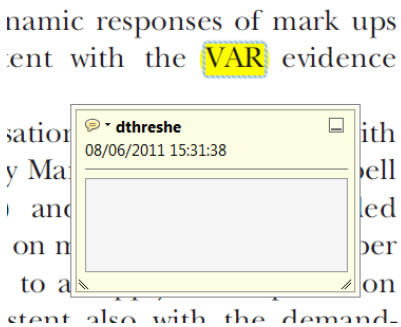

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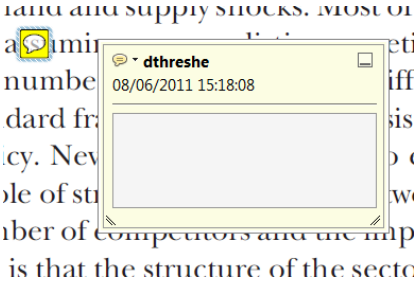

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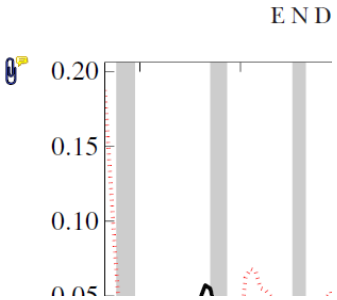

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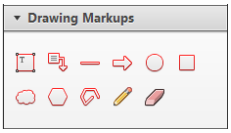

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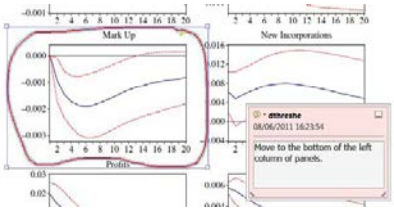

DOI: 10.1111/1471-0528.14699
www.bjog.org

Commentary

Long-acting reversible contraception: conflicting perspectives of advocates and potential users

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Accepted 18 April 2017.

Please cite this paper as: Rowlands S, Ingham R. Long-acting reversible contraception: conflicting perspectives of advocates and potential users. BJOG 2017; https://doi.org/10.1111/1471-0528.14699.

Worldwide, the use of long-acting reversible contraception (LARC) has easily overtaken oral contraceptive use, now with double the prevalence.[1] Rates of LARC use (defined as subdermal implants, intrauterine contraceptives, and injectables) are twice as high in the developing world as in the developed world.[1] There are many reasons for this increasing use of LARC, some to do with potential users and some to do with advocates of LARC. There has been a general increase in public awareness and knowledge of and confidence in LARC. Amongst advocates, to mention just a few reasons, there has been a shift in medical opinion about the safety of postplacental insertion of intrauterine contraception (IUC), facilitating greater postpartum uptake,[2] with a considerable focus on post-termination of pregnancy contraception,[3] and offering IUC to nulliparas has become more mainstream.[4] Price-lowering initiatives have also contributed enormously to the expansion of the availability of LARC.[5]

Other forces work in the opposite direction, with not all of them yet understood. For example, in Australia, despite higher levels of awareness of LARC than in many other countries, a majority of women and men do not consider that these methods are reliable and so would not use them.[6] Across five countries in Europe, one-third of women will not contemplate using IUC as it may have post-fertilisation effects.[7] US expert opinion is that, even with all barriers to access removed, ultimately fewer than one-third of women will choose LARC.[8]

Facilitating access to LARC is widely regarded as an important public health measure with which to reduce unintended pregnancy. It has been shown in the USA that an LARC training intervention for providers can lower pregnancy rates amongst those attending for contraceptive services.[9] It is, however, important to guard against the notion that LARC is itself the main solution to the issue of unintended pregnancy. When reading reports of programmes such as the CHOICE project,[10] it is tempting to conclude that the more women who move to using LARC the better; however, it has been calculated that most of the 'CHOICE effect' could have been achieved not by an increase in LARC use, but by the adoption of pills, patches, and vaginal rings by non-users and condom users.[11]

When undertaking the care of contraceptive users, comprehensive information about the full range of methods should be provided. An individual woman being counselled about her contraceptive choices must be free to make her own decision, which will not necessarily align with what is epidemiologically the best option for curbing fertility rates. Particular demographic groups targeted by LARC promotion programmes include young women and those undergoing termination of pregnancy.[12,13] Some British healthcare professionals feel that their clinical management is being overly influenced by LARC targets imposed on them by policy makers and service managers, eroding their freedom to respond to women's needs.[14] US contraceptive expert attitudes are strongly against the incentivisation of women to use LARC, and are almost as strongly against the incentivisation of clinicians to initiate LARC.[8] Clinicians need to take care – when they have 'dual agent' roles, acting both on behalf of individual patients and the demands of public health – that their professional obligations to a patient come first.[15] The carefully crafted World Health Organization tiered-effectiveness model of contraceptive counselling mentions LARC methods first, but respects women's autonomy in decision-making.[16]

Provider bias for or against LARC has been reported.[16] This takes various forms and may be explicit or implicit. Negative professional attitudes to the use of IUC by the young or nulliparous are still widespread. Insisting upon restrictive protocols, with two-visit insertion protocols, for example, can inhibit access to LARC.[17] Clinicians need to

improve their own knowledge and attitudes in order that they can assist women with 'myth-busting'. The preferential supply of LARC to particular racial groups or to those of low socio-economic status is an unsavoury phenomenon, the precise extent of which is unknown.[18]

Some of the evidence for provider bias against LARC comes indirectly from women. There may be medical resistance to LARC, with providers viewing women as 'too young'.[19] Some women report that they have had to be persistent and push to obtain LARC, or, in some cases, try another hormonal method first as a precondition to receiving LARC. Young women report instances of provider resistance to requests for LARC removal when they are overwhelmed by side effects.[18]

Although effectiveness is the prime characteristic most women seek when choosing a contraceptive method,[16] there are many personal factors that inhibit women from adopting LARC methods. These include concerns, fears, perceptions, and misperceptions. There are concerns about the possibility of known adverse effects, such as irregular bleeding and 'visible' side effects such as weight gain, and groundless but nevertheless strongly felt fears of adverse outcomes, such as interference with future fertility.[20] Some young women feel disconcerted about the amount of hormone being released in their body,[21] despite the fact that the actual hormone levels are modest (implant) or low (intrauterine system); there is also a concern that hormone release from the device could suddenly cease. Some (especially young) women are wary of the implant because of its visibility and the possibility of alerting others to their sexual activity.[21] In this respect the derogatory term 'slag-tag' is now widespread in the British vernacular, and has been used to stigmatise younger women.

Amongst young American women there is uneasiness about LARC and negative descriptions of the methods, either in mechanistic terms (invasive, requiring surgery, or 'almost surgery') or emotional terms (scary or, according to one woman, 'oh, it's an alien').[19] Some Australian women describe the implant as weird, bizarre, creepy, or even akin to being microchipped.[22] There are also misconceptions about risks and feelings that LARC methods would only be appropriate in a later phase of their lives.[19,20] Some fear needles or pain.[20] IUC is ruled out for some women who cannot contemplate the prospect of undergoing an intimate examination at all or who have anxieties related to the embarrassment of insertion into 'private parts', particularly if they were menstruating. Others have fantasies about an IUC 'up in me' ripping their internal organs, getting lost inside, or becoming dislodged during sex.[19,20]

Power issues underlie the use of LARC, both in relation to interactions that occur within consultations with providers and in a woman's ability to have control over her own contraceptive method.[15] The delivery of contraception, which does not involve treating an illness, should be patient-centred; power imbalance should be minimal. Although the days of medical paternalism are generally thought to be over, care is needed to ensure that medical power is not over used and that there is full respect for a woman's autonomy and rights. In some countries there is a legacy of non-consensual sterilisation that continues to affect the confidence of the public in healthcare providers.[23] Providing a reliable means to control her fertility empowers a woman, freeing her to pursue her interests and aspirations, and ultimately giving her the possibility of self-determination. In this regard, LARC methods are remarkable agents as they provide high effectiveness without the permanency of sterilisation. Many women value the 'fit and forget' property that gives them peace of mind.[20] The contribution that LARC has made to allowing women to play a full part in society cannot be overstated.

Despite all these positive attributes, LARC methods are essentially invasive. IUC and implants need to be inserted into the body and cannot generally be removed without medical assistance. This provider dependence takes away control of starting and stopping these methods, a property valued by a substantial proportion of women,[20] and so is relatively disempowering. The cessation of injectables is under a woman's control, however. Subcutaneous depot medroxyprogesterone acetate injections allow women themselves to continue and discontinue their LARC method.[24]

There is a mismatch in perceptions between advocates of LARC and potential users. A public health approach supports less personal control over contraception, so there is reduced room for error and therefore greater effectiveness and continuation. In contrast, women themselves often prefer to retain control over their contraceptive method.[19,20,22] Many women are more comfortable using oral contraception because it is under their control,[19] despite its lower effectiveness. Although there is general agreement that women should be offered the full range of methods, advocates may be biased towards preferentially promoting methods on the grounds of high effectiveness; there is a tension here, as this can undermine the woman's autonomy. Clinicians working in all settings need to appreciate more how individuals make decisions about their method of contraception. Undue pressure to use a method is likely to result in higher dissatisfaction and discontinuation rates.

In the USA, continuation rates with IUC and implants are higher than for combined hormonal methods; however, continuation rates for injectables are lower than for combined hormonal methods.[25] Whether women continue or discontinue their LARC method depends on many factors. Once women become established on IUC or implants, satisfaction rates are remarkably high. Women who are more determined not to become pregnant are less likely to discontinue their LARC method, whereas those who experience side effects are more likely to discontinue. Removals

do not inevitably follow from side effects, however: the actual rate of side effects will always be many times higher than that of removals. Individuals follow a 'balance sheet' approach and weigh up the various factors for and against a particular method. Clinicians see women who persist with implants as their method despite many years of prolonged bleeding episodes: these tend to be older women whose families are complete. On the other hand, young women are generally less tolerant of problematic bleeding.[14]

In summary, a patient-centred approach to contraceptive care is fundamental to women's autonomy. It needs to be appreciated that unintended pregnancy is most likely to be reduced by fulfilling the unmet need for contraception and encouraging those not using any form of contraception, or condoms only, to use a method of their choice accompanied by adequate instruction (where necessary) in correct usage. Against this backdrop, however, the incentivisation of LARC use and target-driven LARC programmes could be seen to be problematic, as is patient targeting by demographics. The promotion of LARC over and above other contraceptive methods can lead to coercive practices.

Disclosure of interests
None declared. Completed disclosure of interests form available to view online as supporting information.

Contribution to authorship
SR conceived the outline of this article. RI provided support on the structure and format. SR explored the literature and wrote successive drafts of the manuscript. RI provided writing and editing support for each draft.

Details of ethics approval
Ethics approval not applicable.

Funding
No funding.

Acknowledgement
We are grateful to Professor Cynthia Graham for her valuable comments on an earlier version of this article. ■

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