

COMMENTARY

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

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Tweetable abstract

Power issues influence adoption of long-acting reversible contraception.

Worldwide, use of long-acting reversible contraception (LARC) has easily overtaken oral contraceptive use, now with double the prevalence.¹ Rates of LARC (defined as subdermal implants, intrauterine contraceptives and injectables) use 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 only a few reasons, there has been a shift in medical opinion about the safety of postplacental insertion of intrauterine contraception (IUC) facilitating more postpartum uptake², considerable focus on postabortion contraception³ and offering IUC to nulliparas has become more mainstream⁴. Price-lowering initiatives have also contributed enormously to the expansion of availability of LARC.⁵

Other forces work in the opposite direction, not all of them 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 a 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 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 women¹² and those undergoing abortion.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 incentivisation of women to use LARC and almost as strongly against incentivisation of clinicians to initiate LARC.⁸ Clinicians need to take care - when they have 'dual agent'¹⁵ roles, acting both on behalf of individual patients and the demands of public health - that their professional obligations to a patient come first. 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 use of IUC by the young or nulliparous

are still widespread; insisting upon restrictive protocols - for example, two-visit insertion protocols - 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'. Preferential supply of LARC to particular racial groups or those of low socio-economic status¹⁸ is an unsavoury phenomenon, the precise extent of which is unknown.

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 effects¹⁸.

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 body²¹ 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 due to its visibility and the possibility of

alerting others to their sexual activity²¹; 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 issues¹⁵ 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. 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 women's autonomy and rights. In some countries there is a legacy of non-consensual sterilisation²³ that continues to affect the confidence of the public in healthcare providers. 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 which 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. However, cessation of injectables is under a woman's control. Subcutaneous depôt 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. Whilst 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 women'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. However, removals do not inevitably follow from side effects; 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 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,

incentivisation of LARC use and target-driven LARC programmes could be seen to be problematic, as is patient targeting by demographics. Promotion of LARC over and above other contraceptive methods can lead to coercive practices.

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Contribution to authorship

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

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References

1. World contraceptive patterns 2013 www.un.org. New York: United Nations Department of Economic and Social Affairs; 2015.
2. Leading Safe Choices. Best practice in postpartum family planning. London: Royal College of Obstetricians and Gynaecologists; 2015.
3. Rowlands S, Gemzell-Danielsson K. Postabortion contraception. *European Journal of Contraception & Reprod Hlth Care*. 2017; 22:162-3.
4. Hall AM, Kutler BA. Intrauterine contraception in nulliparous women: a prospective survey. *J Fam Plann Reprod Health Care*. 2016; 42:36-42.
5. Rowlands S, Searle S. Contraceptive implants: current perspectives www.dovepress.com/contraceptive-implants-current-perspectives-peer-reviewed-article-OAJC. *Open Access Journal of Contraception*. 2014; 5:73-84.
6. Holton S, Rowe H, Kirkman M, Jordan L, McNamee K, Bayly C, et al. Long-acting reversible contraception: findings from the Understanding Fertility Management in Contemporary Australia survey. *European Journal of Contraception & Reproductive Health Care*. 2016; 21:116-31.
7. Lopez-del Burgo C, Mikolajczyk RT, Osorio A, Errasti T, de Irala J. Women's attitudes towards mechanisms of action of birth control methods: a cross-sectional study in five European countries. *J Clinical Nursing*. 2013; 22:3006-15.
8. Foster DG, Barar R, Gould H, Gomez I, Nguyen D, Biggs MA. Projections and opinions from 100 experts in long-acting reversible contraception. *Contraception*. 2015; 92:543-52.
9. Harper CC, Rocca CH, Thompson KM, Morfesis J, Goodman S, Darney PD, et al. Reductions in pregnancy rates in the USA with long-acting reversible contraception: a cluster randomised trial. *Lancet*. 2015; 386:562-8.
10. Winner B, Peipert JF, Zhao Q, Buckel C, Madden T, Allsworth JE, et al. Effectiveness of long-acting reversible contraception. *NEJM*. 2012; 366:1998-2007.

11. Karpilow QC, Thomas AT. Reassessing the importance of long-acting contraception. *Am J Obstet Gynecol*. 2016; 216:148.e1-.e14.
12. Committee Opinion 539. Adolescents and long-acting reversible contraception: implants and intrauterine devices. Washington, DC: American Congress of Obstetricians and Gynecologists; 2012.
13. Rowlands S. Women's autonomy versus societal pressure to control fertility. *BJOG*. 2017; 124:824.
14. Hoggart L, Newton V, Dickson J. Understanding long-acting reversible contraception: an in-depth investigation into sub-dermal contraceptive implant removal amongst young women in London. London: University of Greenwich; 2013.
15. Goodyear-Smith F, Buetow S. Power issues in the doctor-patient relationship. *Health Care Analysis*. 2001; 9:449-62.
16. Stanback J, Steiner M, Dorflinger L, Solo J, Cates W. WHO tiered-effectiveness counseling is rights-based family planning. *Global health: science and practice*. 2015; 3:352-7.
17. Biggs MA, Arons A, Turner R, Brindis CD. Same-day LARC insertion attitudes and practices. *Contraception*. 2013; 88:629-35.
18. Higgins J, Kramer R, Ryder K. Provider bias in long-acting reversible contraception (LARC) promotion and removal: perceptions of young adult women. *AJPH*. 2016; 106:1932-7.
19. Sundstrom B, Baker-Whitcomb A, DeMaria AL. A qualitative analysis of long-acting reversible contraception. *Matern Child Health J*. 2015; 19:1507-14.
20. Coombe J, Harris ML, Loxton D. What qualities of long-acting reversible contraception do women perceive as desirable or undesirable? A systematic review. *Sexual Health*. 2016; 13:404-19.
21. Garrett CC, Keogh LA, Kavanagh A, Tomnay J, Hocking JS. Understanding the low uptake of long-acting reversible contraception by young women in Australia: a qualitative study. *BMC Women's Health*. 2015; 15:72.
22. Inoue K, Kelly M, Barratt A, Bateson D, Rutherford A, Black KI, et al. Australian women's attitudes towards and understandings of the subdermal contraceptive implant: a qualitative study of never-users. *J Fam Plann Reprod Health Care*. 2016; <http://dx.doi.org/10.1136/jfprhc-2014-101132>.

23. Reilly PR. Involuntary sterilization in the United States: a surgical solution. *Q Rev Biol.* 1987; 62:153-70.
24. Kim CR, Fønhus MS, Ganatra B. Self-administration of injectable contraceptives: a systematic review. *BJOG.* 2017; 124:200-8.
25. Trussell J. Contraceptive failure in the United States. *Contraception.* 2011; 83:397-404.