

Long Acting Reversible Contraception, Young Women and Social Norms

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The Applied Health and Wellbeing Partnership supports the development, delivery and evaluation of the Wirral Health and Wellbeing Strategy, through the innovative generation and application of evidence for effective and sustainable health and wellbeing commissioning.

Contents

1. Background	2
1.2 Research objectives	3
2. Methodology	3
3. Results.....	5
3.1 Social characteristics of participants	5
3.2 Awareness of LARC	5
3.3 Knowledge and impressions of LARC.....	6
3.4 Increasing awareness and encouraging uptake of LARC	11
4. Key findings.....	13
5. Recommendations	15
5.1 Recommendations to improve education, promotion and awareness	15
5.2 Service delivery recommendations	15
6. Appendix	16
Rapid Evidence Review	16
7. References	20

1. Background

Although falling, the 2012 teenage pregnancy rate in Wirral remains high (33.5 per 1,000 15-17 year olds) - higher than both the North West average (31.7 per 1,000) and the England average (27.7 per 1,000; ONS 2014).

National Institute for Health and Clinical Care (NICE) Guidance, introduced in 2005, aimed to increase uptake of long acting reversible contraception (LARC). LARC methods are not user-dependent and are highly effective. All LARC methods are more cost effective than the combined oral contraceptive pill, even at one year of use (NICE 2005). It is expected that increasing the uptake of LARC methods will reduce the numbers of unintended pregnancies.

LARC are contraceptive methods that require administration less than once per menstrual cycle or month. Included in the category of LARC are:

- The two types of coil (referred to together as 'IUS/IUD' in this report):
 - Copper intrauterine devices (IUD) which last 5-10 years and act by preventing fertilisation and inhibiting implantation.
 - Progestogen-only intrauterine systems (IUS) which last five years.
- Progestogen-only injectable contraceptives which last 12 or 8 weeks depending on brand (referred to as 'the injection').
- Progestogen-only sub dermal implants which last up to three years (referred to as 'the implant').

All methods are over 99% effective. Progestogen acts to stop ovulation, thicken cervical mucus to stop sperm reaching an egg, and thins the lining of the uterus to prevent a fertilised egg implanting.

Nationally, the uptake of LARC has been slower than expected (NICE 2010) and some evidence shows that health professionals, especially GPs, are reluctant to prescribe LARC to adolescent women. Wirral has lower prescribing rates of LARC than both England and the North West. More specifically, in England and the North West, LARC prescriptions have increased year on year since 2007-2008, however, this is not the case in Wirral, where LARC prescribing has remained static since 2007-2008 (Wirral JSNA).

Public Health Wirral are particularly interested in LARC use in adolescents. A rapid evidence review was conducted in early 2013 (see appendix) and found there is a dearth of evidence about young women's perceptions of LARC, where they get information regarding these methods and how they could be encouraged to use LARC. There is a particular lack of evidence from the UK.

Social norms and peer influence have both been found to affect behaviours such as smoking (Simons-Morton & Farhat 2010), risky sexual activity (Potard et al 2008), timing of sexual debut (Sieving et al 2006) and alcohol consumption (Neighbors et al 2007). Information regarding prevailing social norms can be used to design and target prevention programmes. The rapid evidence review found no research that looked specifically at social norms and LARC use in adolescents. More information about the social norms relating to LARC amongst adolescent women should enable Public Health Wirral to target promotion messages, decrease reluctance to use LARC and, as a consequence, will hopefully increase uptake.

1.2 Research objectives

- To explore commonly held beliefs around LARC in peer groups of young women at risk of teenage pregnancy.
- To explore where knowledge and understanding of LARC comes from and how this information is transmitted within the group and within their other peer groups.
- To explore how information could be communicated to change social norms and increase uptake of LARC.

2. Methodology

2.1 Design

This study aimed to elicit detailed information from groups of young women, therefore a qualitative focus group methodology was deemed most appropriate.

2.2 Sampling and participant selection

Groups of peers were recruited through a further education college in Wirral. Groups were tutorial classes where the young women already knew each other and had been peers for at least six months. Interviewing different groups of peers about their perceptions of social norms and peer influences highlights common knowledge and misconceptions amongst different peer groups. Focus groups with young women who know each other (as opposed to groups of strangers or a random sample) will reveal prevailing opinions held by the group, and allows for a consensus to be reached. We aimed to recruit participants aged 16 to 18 years old; however due to the mix of young women in the tutor groups we could not exclude participants over 18.

2.3 Recruitment

Recruitment was facilitated through the contacts of Wirral's Teenage Pregnancy Coordinator (TPC) who initially approached staff at the college to ask them to help recruit young women. The research rationale and proposed methods were agreed with the TPC to ensure appropriateness and feasibility. Originally we had intended to also recruit participants through Wirral Youth Service, recruiting young women taking part in a specific project working with vulnerable young women. However, this was not possible as once the local authority had formally approved the research the project was coming to an end and the groups were no longer meeting. Therefore all participants were recruited from the college.

2.4 Procedure

Two researchers from the Applied Health and Wellbeing Partnership, LJMU, facilitated each focus group. The principal researcher led the discussion and the other researcher observed and recorded the dynamics of the group and the non-verbal communication. A member of the Brook team was present at each focus group. Each focus group lasted between 30 minutes and one hour.

A focus group discussion guide was developed to explore the group's ideas of LARC. It is important to highlight that the discussion guide did not ask about personal experiences and participants were not asked about their own contraceptive use or sexual experiences. The questions focused on what their peers say and do, their opinions and knowledge of LARC and what they have heard from other people or other sources. However, during the course of the discussion some participants volunteered information on their own contraception use and experience. The focus groups were run in an informal relaxed style with prompting when necessary.

2.5 Data Analysis

Focus groups were recorded and detailed notes taken with quotes, however, full transcription was not undertaken. To ensure anonymity no individual, college course, school names or identifiable information were recorded in notes or analysis. Notes were analysed using thematic content analysis and presented alongside illustrative quotes.

2.6 Support from Brook

During the focus groups, the researchers expected that a lot of myths and incorrect information would be discussed by the young women. To ensure that such misinformation was corrected and not taken as truth an education outreach worker or nurse from Brook attended each session. A Brook advisor attended each focus group and made a note of any misinformation, and at the end of the focus group spent approximately 10 minutes going through this misinformation and correcting any myths. This was important to ensure the focus group did not make young women reluctant to take up LARC in the future.

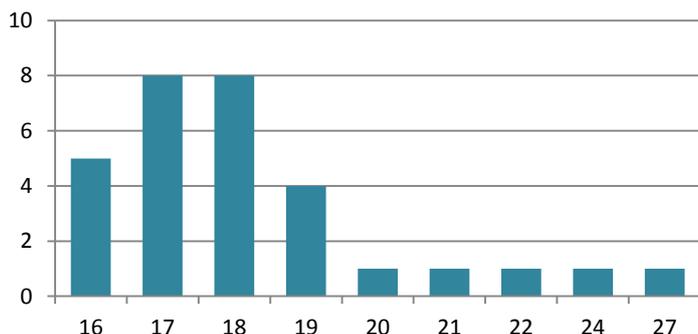
2.7 Research ethics

Ethical approval was obtained from the LJMU Research Ethics Committee (ref: 12/HEA/099). All participants were provided with a participant information sheet at least a week before the focus group and written consent was obtained from all participants. The tutor for each group at the college acted as a gatekeeper and was provided with a gatekeeper information sheet and asked to sign a gatekeeper consent form. All identifiable information was removed and anonymity and confidentiality maintained. The inclusion criteria for this study were young women aged between 16 and over, therefore parental/guardian consent was not required.

3. Results

Thirty participants took part in four focus groups which were conducted over a two week period during spring 2013. The participants were aged between 16 and 27 (mean 18.33 years, median 18 years) with group 1 and group 2 being generally younger (both median age 17) than group 3 and group 4 (median ages 18). All groups were studying beauty/hairdressing or dance/performance related courses that were made up of all female students, with no males registered. Of the thirty participants, four mentioned that they already had children, and all of these had given birth when they were aged 18 or younger.

Figure 1. Age of focus group participants



3.1 Social characteristics of participants

Most of the participants in each of the four focus groups knew each other through the college course they were attending, although a couple of the participants from each group had known each other previously. Most of the participants also socialised together outside of college and three out of the four focus groups agreed that there was one person who was dominant or the most likely to organise activities.

3.2 Awareness of LARC

Across the four groups only one participant had heard the term 'long acting' and knew what methods it involved, whereas the remaining participants reported being unaware of the terms 'long acting reversible contraceptives' or 'LARC'. When prompted almost all the participants were aware of the three individual LARC methods but did not think of them as a class of contraceptives that were grouped together.

I've heard of the methods, just not that term [LARC] (Group 4)

However, although most had heard of the three individual types of LARC most participants did not understand how they prevented pregnancy, how they were administered or who could use them. For group 3 there was some confusion over whether femidoms and the contraceptive patch were types of LARC, the Brook advisor explained why neither were classed as LARC.

The main way in which the participants learned or heard about LARC methods was through talking to family members and friends. Some mentioned friends, sisters, cousins, aunts and mothers who used various LARC methods and some, particularly older female relatives, had encouraged them to use LARC methods.

My mums on the coil, she advised me to go on it, she's not got pregnant off it (Group 1)

The four participants who already had children were very knowledgeable about contraception in general and were all currently using LARC methods. They had been given a lot of information about LARC by their health

visitors and midwives. Two participants had attended a course for new young mothers and as part of this, Brook delivered sex education sessions.

The participants were most aware of the implant and least aware of the IUS/IUD (the coil). Therefore, during the discussion, participants relayed more information they had learned about the implant and injection. For some participants they had never heard anything about the IUS/IUD, positive or negative, but for most it was something they thought that only older women used and only their mothers and aunts would be offered it.

- *I think it's just like for the older...for the old person (laughs)*
- *I just don't know nobody of my age to have it... I think that's more for older people...(Group 4)*

There was a lot of confusion about the IUS/IUD, particularly how it prevented pregnancy and how it looked. At every focus group the Brook advisor described the IUS/IUD and showed one to the group, and the participants all appeared to be very intrigued as they passed it round and commented on how small it was.

Some participants believed their lack of knowledge about the IUS/IUD was because it was never mentioned or offered by health professionals who tended to promote condoms and the pill, or one of the other LARC methods (i.e. the implant or the injection). Whilst the participants learned about the implant and injection through a variety of ways, they had heard about the coil (IUS/IUD) only via older family members (i.e. mothers and aunts).

- *It's fascinating that that can stop you from having a baby*
- *I honestly didn't think it looked like that! (Group 4)*

[The IUS/IUD] just aren't offered as much, like I said, every time I go for my pill check... she offers me the implant or the injection...she's never mentioned that [IUS/IUD], maybe it's cos it's not popular for my age. (Group 4)

School sex education sessions about contraception were also mentioned by the participants, but many agreed that this information focused mainly on the pill and the implant. Some participants discussed Bitesize Brook being delivered at their school and this had included information on LARC. GPs and contraception clinics were mentioned by a few participants as sources of information.

All the participants stated that LARC was not visible in the media, but that condoms and the pill featured regularly. However, whilst participants in one focus group initially agreed that they had never heard or seen information about LARC via the media, when discussing how young women could be encouraged to use LARC, they remembered that reality television programmes (e.g. 'Teen Mom') included information about LARC methods. The participants decided that it was not immediately memorable but if information about LARC was given in this way it could help encourage uptake and prevent teenage pregnancies.

Although not prompted to discuss their own contraception use some participants talked openly and volunteered their own experiences of LARC, however this was only injections and implants - no participants said they had used IUS/IUD. Often when a participant revealed they used LARC the other members of the focus group asked lots of questions and wanted to know about their experience.

3.3 Knowledge and impressions of LARC

Table 1 shows what information the participants had heard about the three separate LARC methods and where this information had come from. Most of the participants believed the information they had heard to be correct, irrespective of accuracy, and much was similar across the four focus groups.

Table 1. Information the participants had heard about each LARC method and the source of the information.

Method	Positive	Negative	Source of information
Implant (sometimes called “the rod” by participants)	<ul style="list-style-type: none"> - Effective - Doesn’t hurt - Doesn’t affect weight - Lasts three years so don’t have to think about it - Stops periods or less bleeding 	<ul style="list-style-type: none"> - Weight gain - Hurts or bruises when being put in/taken out - Can still become pregnant using it - Acne/spots - Size of implant is big - Made periods heavier/more painful - Snapped while in arm - Mood changes - Can move around the body 	<ul style="list-style-type: none"> - Friends - Female family members - Sessions at school (some given by a Brook advisor) - GP/doctor - Contraception clinics - Brook clinic
Injection	<ul style="list-style-type: none"> - It’s good - Don’t have periods while using it - Easier than the pill 	<ul style="list-style-type: none"> - “Hormonal” (mood changes) - Hurts, more than other injections - Can still become pregnant using it - Bones go soft after long-term use - Weight gain - Not having periods 	<ul style="list-style-type: none"> - Friends - Female family members - GP/doctor - Contraception clinics - Brook clinic
IUS/IUD (usually referred to as “the coil” by participants)	<ul style="list-style-type: none"> - Lasts for a long time 	<ul style="list-style-type: none"> - Can still become pregnant using it - Falls out - Hurts having it put in - Snapping - Can make you infertile - Infections 	<ul style="list-style-type: none"> - Female family members (mainly older; mothers and aunts)

Table 1 presents all the positive and negative opinions expressed by the participants about the three LARC methods. There was no overall consensus on the preferred method, what the acceptable side effects of each method are or what appealed for each method. Much of the discussion focused on individual preferences and the young women expressed contradictory opinions:

- For some having no monthly period was seen as a positive but for some this was a negative;
- For some the routine of the daily pill was a reassurance but for others a burden;
- Some thought the implant was ‘vile’ but others thought it was acceptable;
- Some had fear of needles and others didn’t.

The participants couldn’t always separate their opinions about the injection and the implant and there was some confusion and crossover. Below the implant and injection are discussed together highlighting, where possible, which method the participant is discussing.

The majority of the information the participants had heard about LARC was negative or scare stories, mainly via friends and family. The participants in one focus group discussed that they only ever hear negative experiences of contraception methods, and the only positive things they hear are vague concepts like ‘it works’ or ‘it’s good’.

You don't really hear good stuff about things like that; it's always bad cos they always complain (Group 1)

A positive view some participants had heard about LARC methods was that they lasted for a long time so they did not have to think about contraception on a daily or regular basis.

I think it's good that [the implant] lasts for three years as well, you haven't got to worry about anything for three years, it's just there (Group 1)

Whilst discussing each method, it was mentioned by at least one participant in each focus group that they had heard of or known someone to become pregnant when using it. This was also true of contraception methods other than LARC (i.e. contraceptive pill and condoms) that were discussed in the focus groups.

My aunty got pregnant on that [IUS/IUD] (Group 1)

My brother's girlfriend got pregnant on the implant and the injection (Group 1)

Physical and mood-related changes were highlighted as something that was heard or discussed by a few participants. The main fear was that the methods caused users to gain weight, this specifically related to the implant and the injection. Again, other contraception methods such as the pill were also blamed for this. One participant mentioned that she was reluctant to use the implant because she had heard it caused acne.

"People have got their [implant] taken out yeah because of weight issues (Group 4)

[LARC has] come up but then [the GP] decided to tell me that you can put weight on on it so I didn't want to do it (Group 1)

I heard [the implant] can give you acne and spots, I used to get spots and that put me off (Group 2)

One of my mum's friends, she was like a size 10 and she went on the implant, and she was 10 stone and she went up to 15/16 [stone], she put on loads of weight. And that's what puts me off it; how someone can be so skinny to the next minute, in a matter of a year, to be so big (Group 3)

The participants mentioned friends, family members or they themselves had experienced mood swings whilst using either the implant or the injection, sometimes referred to as being "hormonal". This was usually an adverse mood change to feeling either down, depressed or angry.

I heard that it's good but when you first get it [injection] you're proper hormonal (Group 1)

I had mine (implant) for about 8 months and got it took out because I was getting like really depressed and everything... ever since I had it I was crying all the time and I dunno, I just wasn't myself... (Group 4)

The participants stated that they had heard stories about each of the LARC methods being painful when administered or removed and this discouraged them from using them, most of the discussion about pain was around the injection and implants not the IUS/IUD. A couple of participants mentioned that they knew someone who had become bruised after having the implant inserted.

It hurts, it's painful, it's the worst injection ever (Group 1)

I heard [the implant] hurts (Group 1)

It didn't look nice when she had [the implant] put in, her arm was like black (Group 3)

One participant had also heard the actual size of the implant was large and there was a lot of confusion regarding whether the implant was visible through the skin. These ideas of the implant were seen as disconcerting and off-putting by the participants.

I just wouldn't get it [the implant] because the thought of something going into your arm that big (Group 2)

The Brook advisors brought in a model which represented what the implant feels like under the skin and the participants passed this round with great interest. Most were surprised by how little you could see or feel it. In Group 1, one of the participants volunteered to let the rest of the group feel the implant in her own arm and all participants were very eager to do this. For some participants the idea of a foreign object in their body was off-putting, especially the IUS/IUD as they were worried they or their partner would be able to feel it during sexual intercourse.

Specifically relating to devices that are inserted (the implant and the IUS/IUD methods); the participants had heard stories of these methods breaking or falling out or moving inside the body. The discussion showed a lack of understanding, by some participants, of anatomy and the mechanics of contraception. One participant discussed a relative who had become pregnant whilst using the IUS/IUD and the baby was born with the IUS/IUD attached.

[The baby was born] with the coil stuck on its head (Group 2)

"It [IUS/IUD] can fall out, that's what I heard from my sister (Group 1)

What if it hooks onto their willy? [laughs] (Group 4)

I got the rod [implant] put in...and me and my mum were play fighting and the rod snapped in my arm. So I had to get it taken out... (Group 3)

I've heard it [implant] is bad and it snaps (Group 2)

The effect of LARC methods on the menstrual cycle was also discussed. Specifically, some participants had heard that bleeding stops or reduces, especially with the injection.

Oh yeah people have had really bad periods on [the implant] (Group 4)

Because you don't have periods do you, so you get bloated [on the injection] (Group 4)

Some participants stated they would enjoy not having a monthly bleed but some explained how they feel that their body needs this routine or that not having a regular bleed was viewed as a medical concern. For some a monthly bleed was a reassurance they were not pregnant and without it they would feel scared. A minority of participants had heard that bleeding becomes much heavier or more regular when using LARC methods. Some of the participants discussed how they or people they knew had been prescribed the contraceptive pill to regulate bleeding whilst on LARC but the consensus of the groups was that this was an inconvenience.

That was a good thing for me; I was never on my period [using the implant] (Group 4)

It's like what's the point having the implant if you've gotta have the pill as well...? (Group 4)

Other medical problems and side effects of using LARC methods were mentioned. For example, one participant was told by a medical professional that long-term use of the injection could give them problems with bone density. A couple of participants believed that having the coil inserted or using the injection could make you more prone to infertility or infections.

I heard that [IUS/IUD] can make you infertile. Like if you are younger, and you have that, somebody told me that it's not good. (Group 4)

They say it [injection] stops you having kids for some people full stop, doesn't it? (Group 2)

Group 4 had a long discussion about LARC and the contraceptive pill and their opinion over which was more suited to them. For some participants they felt the routine of taking a pill every day was both important and reassuring, and it also made them feel in control of their contraception. Some of the other participants in this group acknowledged they had very poor memories which often resulted in them forgetting to take their pill and consequently becoming worried that their contraception is ineffective.

- *With a pill you know you are taking it, so as long as you are taking it correctly you'll know it's working...but with that thing [implant]...I dunno you can't see it working*
- *I think it's much safer...I might get it put back in you know, because I always forget my pill (Group 4)*

- *See I think the opposite...I think like with a pill you know you are taking it...like I think...[the implant] you don't know if it's working*
- *But there is no chance that you could ever forget to put it in your arm...it's always there (Group 4)*

The focus group facilitator asked each group to relate any wild or outrageous stories about LARC they had heard, but they knew to be untrue. Only one participant offered a story that they had heard: if you got pregnant whilst you had the implant (and it wasn't removed), the baby would have developmental problems or be born with a deformity.

"The one thing I have heard though is if you get pregnant and you had the implant in your baby would turn into like this freak and it wouldn't grow properly. That's the one thing I've heard, it would go all deformed" (Group 3)

3.4 Increasing awareness and encouraging uptake of LARC

Most participants agreed that the media could play a part in increasing the awareness of LARC and the use of LARC methods by young women. The participants mentioned that contraception, particularly LARC is rarely covered in drama or soaps, and when contraception is referred to it was usually only condoms and the pill. Two groups discussed how LARC was covered in reality TV shows and Group 1 specifically discussed how it was covered in programmes such as 'Geordie Shore', '16 and Pregnant' and 'Teen Mom'.

"Any [television programmes] that people watch or even just as an advert (Group 1)

I think there should be more telly programmes and adverts, definitely (Group 3)

Participants suggested that magazines aimed at women would be a good way to promote LARC. Two groups discussed that magazines often have 'sex position of the month' and this should be a place to include information about contraception.

- *The only thing it has is a page in the back [of the magazine] about sex positions, and nothing else about anything.'*
- *If they [magazines] are going to have sex positions, they should have contraception as well (Group 3)*

Some participants suggested that websites and adverts on social networking sites would increase their awareness and might encourage them to use LARC. However, they did also discuss that such adverts can be easily blocked or ignored. One group discussed mobile phone apps and asked if Brook had an app.

Or like on the internet...here's a website, there's a video of it and how you use it. That would be so much better because I would understand that, instead of sitting there, reading something (Group 3)

Two groups discussed how all the sexual health promotion they see mainly aims to encourage them to use condoms and does not promote LARC. Group 3 thought the exclusive promotion of condoms was because condom companies were trying to increase sales and raise profits whereas LARC is not promoted for profit.

- *Condoms are shown everywhere...but stuff like this [LARC] is not shown*
- *Durex are always on the adverts...*
- *And I think condoms are the least used thing, so why is that being promoted the most, because I don't think many people use them (Group 4)*

I think it's because you don't buy them [LARC], like condoms; they do adverts because you buy them so they're making money so they do adverts... (Group 3)

The use of leaflets in salons, by post or in the paper was mentioned by two of the groups as a possible way to promote LARC. However, in another group, a couple of participants felt that leaflets did not work to encourage or educate young women about contraception, especially those who did not have confident reading skills.

I think like putting leaflets in a salon reception would be good...or like in the newspaper where you get a Co-op leaflet (Group 1)

They give you the leaflets on it, I've got dyslexia and my mum didn't read things to me because she was too busy...so I'd try and read it and then I couldn't. So if the information was there, I wouldn't know about it...So I just shoved it aside... (Group 3)

Most groups discussed the sex education they had had at school and how this could have been improved. School sessions could encourage or educate young women about LARC methods and one group discussed in detail how this should happen at a younger age not just in year 11 (age 15-16). Some participants felt that although they learnt about the consequences of unprotected sex (STIs and unplanned pregnancy) they did not learn much about contraceptive methods especially LARC. Some participants discussed the *Bitesize Brook* sessions they had at school were very positive and remembered they had included information on LARC. Having models of the LARC products to pick up and examine was thought to be useful to increase understanding and reduce anxiety.

I think the 'Bitesize' thing was good because you actually got to do stuff in it, it wasn't just like a big long lecture...They actually showed you them as well they had like everything on the table and stuff (Group 1)

One group discussed how it would be helpful to be able to access contraception including LARC within school as some young people are scared, unable or unwilling to attend Brook or other sexual health service providers.

I think they should give them [LARC] at school...do you know like when you used to get your flu thing [injection]? They should do it like that....because it's like there, and some people are just lazy, like they'll get told about it but they're not gonna do nothing about it. Or like some people like won't want to go the Brook on their own. Because I remember my first time going to the Brook; I used to be dead embarrassed to go in... (Group 3)

4. Key findings

- For young women in this study the main sources of information about LARC were their friends and older female relatives. Participants discussed these experiences with total belief in the information, and did not appear to be critical of what they had heard, even when the Brook advisor explained how some elements could not be true.
- Some young women had received information from health professionals, including their GP and nurses at Brook or NHS contraceptive and sexual health clinics. Usually this was at contraception consultations when young women had attended for a routine pill check-up and the health professional had discussed LARC.
- Young women reported that they received very little information about LARC at school during lessons or sex and relationship education. Some participants spoke favourably about taking part in a Bitesize Brook session at school which covered LARC. They particularly liked education sessions in which they could see and feel the products.
- Although some participants discussed friends and relatives talking positively about LARC the majority had only been told about negative experiences. As most information came from friends, relatives and other 'unofficial' channels, the information they received was often hearsay, confusing, vague, unclear or simple myths (table 1 on page 8 describes the information they had received about each LARC method).
- A minority of participants who had heard positive things about LARC had actively sought out LARC at Brook or a community contraceptive clinic. Some participants described how their mothers or sisters had recommended or insisted they use LARC.
- During the discussion some participants revealed that they were using or had used either the injection or the implant; some were happy with these methods but some reported having had implants removed or discontinuing as they were unhappy. No participants revealed they used the IUS/IUD.
- Discussion about the implant and injection focused on concerns about weight gain, mood swings and hormonal changes, unreliability, chance of becoming pregnant and pain of administration. Heavy or irregular bleeding was mentioned by a minority of participants.
- The majority of the discussion focused on both the implant and injection methods as the IUS/IUD was thought to be something only older women used and awareness was low about how it looked or worked. Young women felt that the IUS/IUD was not targeted at them and health professionals never suggested it.
- The prevailing opinions of those who had not used LARC were negative. It was unclear whether this was because friends and relatives had had mainly negative experiences, or were more likely to discuss negative experiences, or if the participants were more likely to remember the discussions about negative experiences. Discussions around the positive elements of LARC tended to be vague and none specific.
- Many different personal preferences were mentioned by participants, which were often at contradicted by the preferences of other people in the group. For example, opinion was divided on whether:
 - having no monthly period was a negative or positive effect of LARC;

- having a contraception method you did not need to take every day was reassuring or worrying and;
 - which LARC method would be the most painful or unpleasant to be inserted/administered.
- All four participants who already had children had discussed LARC with a midwife or nurse and the majority volunteered that were using LARC. This indicates that teenage mothers are being successfully targeted with information and access to LARC.
 - Participants felt that the majority of media coverage of contraception focuses on condom promotion and the contraceptive pill.
 - Participants believed if there was more representation of LARC methods in soap operas, reality TV programmes and other programmes aimed at young women, awareness could be raised. Some participants believed if LARC was shown on TV more regularly it would encourage young women to ask their GP or Brook nurse about the methods.
 - Magazines were discussed as a good channel to communicate messages about LARC to young women. Two groups discussed how information about other contraception and LARC should be included alongside articles on sexual positions in women's magazines.
 - Opinion was divided on whether leaflets about LARC would be an effective way to promote and increase awareness

5. Recommendations

5.1 Recommendations to improve education, promotion and awareness

1. In order to increase awareness, dispel myths and encourage acceptance of LARC, health professionals in GP practices, Brook and community contraceptive clinics should use all opportunities to promote the benefits of LARC to young women. Specifically, routine contraceptive pill check-up consultations would be an ideal opportunity for this and for services which are not able or trained to fit LARC, patients could be signposted to other services.
2. A campaign to inform women of accurate information could help correct some scare stories and dispel myths about LARC. For example, messages that state the high reliability of LARC methods and the proportion of people that will experience specific side effects could reassure young women that most people do not have a negative experience of LARC. Young people friendly leaflets could be distributed, and information sessions could be hosted by local organisations who work with young people, for example in colleges, training and youth organisations. Targeted adverts on social networking sites could also correct these myths; such promotion could highlight that young women may be more likely to hear about the negative experiences from their peers.
3. Most young women received information about LARC from older friends and relatives. This research found that young women put a lot of trust in the information they receive from older friends and relatives, therefore any awareness raising campaigns would benefit from targeting women of all ages.
4. Sex and relationship education, both in school and outside school, would benefit from including more detailed information on the various LARC methods; how they work, the benefits and likelihood of side effects. This would be an opportunity to dispel any myths. Bitesize Brook is an example of a project that provides clear and useful information in an enjoyable way. Education should include models of the products to enable potential users to understand the size and visibility.
5. As awareness, understanding and use of the IUS/IUD was low in the young women who took part in our research, it was not possible to investigate whether this method was acceptable to them. It would be beneficial for commissioners and clinicians to further investigate this issue, to determine whether it is appropriate to promote the IUS/IUD to young women.

5.2 Service delivery recommendations

6. There were contradictions between group members on what was appealing or off-putting about different LARC methods. Such contradictions highlight the importance of having a variety of methods available, tailoring options to individuals and not using a 'one size fits all' approach; an acceptable or positive side effect for one patient could be a very discouraging element for another patient. It is important for health professionals to understand the needs and opinions of each individual patient, and for patients to ultimately make the decision about which method to use.
7. School based health services (as part of the Health Services in School programme) could actively promote LARC methods to attendees, particularly those who request emergency hormonal contraception or condoms. Although LARC is not available in many schools, the nurse or youth worker could signpost students to Brook or community contraceptive clinics. Information on each method should be available in a young person friendly format and models of the products could be available in the nurse's office in school.

6. Appendix

Rapid Evidence Review

Background to Evidence Review

A rapid review of the evidence was conducted in early 2013. The review searched peer reviewed journal articles and grey literature for research relating to long acting reversible contraception, patient and provider experience. Although the review aimed to focus on research about LARC and adolescents there was a particular lack of evidence in this area.

National and local uptake of LARC

- NICE Guidance introduced in 2005 (and updated in 2010) aimed to increase uptake of LARC and stated “Women requiring contraception should be given information about and offered a choice of all methods, including long-acting reversible contraception (LARC) methods. Contraceptive service providers should be aware that:
 - all currently available LARC methods (intrauterine devices [IUDs], the intrauterine system [IUS], injectable contraceptives and implants) are more cost effective than the combined oral contraceptive pill even at one year of use.
 - IUDs, the IUS and implants are more cost effective than the injectable contraceptives.
 - increasing the uptake of LARC methods will reduce the numbers of unintended pregnancies.” (NICE 2010)
- NICE assume that “if given better information and improved access to all methods of contraception, more women will choose a LARC method over the oral contraceptive”. (NICE 2010). It was acknowledged that the optimum uptake of LARC would not be achieved in the short term, due to shortage of trained staff, and the prediction of uptake was a prediction over five years
- Prescriptions for implants (Implanon) and IUS in primary care in England are increasing (NICE 2010)
- Prescribing for IUD initially remained relatively static following the publication of the NICE guidance in 2005 but there has been a slight increase since 2007 (NICE 2010)
- The numbers of prescriptions for injectable contraceptives (Depo-Provera) are decreasing slowly (NICE 2010)
- The uptake of LARC methods is a phased prediction over five years. Based on the figures published in 2010 the uptake is slower than expected and the uptake of LARC methods will take longer than initially predicted. (NICE 2010)

However, a lot of the evidence comes from the USA and is somewhat irrelevant due to difference in health insurance systems and health service design.

Health professionals’ perceptions of LARC

Middleton et al (2012). Simple multiple choice questionnaire about IUS (Mirena) answered by 71 GPs in London in 2008.

- None would recommend it as their first choice contraceptive for women under 25 who had never been pregnant, only 8% recommended another LARC. 92% stated they’d recommend oral contraceptive was first choice
- 17% thought it increased the risk of pelvic inflammatory disease (no evidence of this) and 23% thought it increased risk of ectopic pregnancy (whereas evidence shows the opposite).
- Doctors who qualified more recently were more likely to offer it to younger patients and were more knowledgeable about efficacy and risks.

- Confusion over efficacy of IUS, how it affects periods and how it actually works.

Welling et al (2007) – questionnaire survey of 321 health professionals working in general practice. Data were collected in 2005:

- Since LARC require medical intervention attitudes of health professionals are important.
- Mean scores for acceptability to potential users were higher for implants and injectables than for barrier methods lower than for combined oral contraception which received the highest score.
- Scores for ease of use of the different methods were higher for LNG-IUS, injectables and implants than for the other methods.
- Combined oral contraceptive considered best contraceptive for all scenarios suggested apart from women in 40s.
- Low proportion of health professionals thought LARC suitable for younger women, condoms considered ideal even for teenage mothers.
- A high proportion of practitioners (81%) endorsed the role of long-acting methods in preventing teenage pregnancy. Fewer than half (47%), however, believe that these methods were returning to favour.
- Other things that discouraged them from prescribing/fitting were lack of skills, concerns about side effects, high discontinuation rates.
- Low knowledge around risks to bone density and infertility.
- Despite relatively high opinion of reliability and acceptability GPs and nurses were still reluctant to prescribe LARC, especially to younger women.

Women's reasons for choosing to use LARC

Bharadwaj et al (2012) surveyed women under 22 in a young person's community contraceptive clinic. Reasons LARC appealed or would appeal included:

- Reliability and 'no need to remember anything' most attractive thing about LARC.
- For the implant they liked the three year duration of it.
- Favoured implant over intrauterine or injection because they knew other women who has used it successfully.
- No interference with an act of sexual intercourse was also important.
- Less or lighter bleeding seen least important reason to choose LARC.
- Lighter periods or cessation of periods a reason for choosing injection over implant or intrauterine.

Kane et al (2009) - Interviews and questionnaires with women of all ages in Lincolnshire.

- The main reasons for opting for Implanon included ease of use (n = 23), previous problems with other methods (n = 13), reliability (n = 7), long-term benefits (n = 6) and that it was selected on the advice of the GP or nurse (n = 4).

Glasier et al (2008) conducted focus groups with women of all ages in Scotland about their contraceptive choices.

- Contraceptive implants were perceived slightly more favourably than the injection. Women knew that implants last for 3 years (and up to 5–10 years for some implants), are easy, "no need to remember" and suitable for all ages.

Women's reasons for choosing not to use LARC

Bharadwaj et al (2012) surveyed women under 22 in a young person's community contraceptive clinic.

- Having a foreign object inside the body was an important deterrent for LARC use among young women.
- Also worried that a LARC would affect their future fertility or cause weight gain.

- Fear of pain and fear of needles is a main factor deterring young women from using any LARC, especially fearful of pain of fitting intrauterine. Local anaesthetic doesn't help a fear of needles and there is limited evidence for effective interventions for pain relief during and/or after insertion of intrauterine contraceptives. Young women cannot be fully reassured that they will not experience pain or discomfort during IUD or IUS insertion or afterwards.
- LARC was seen to interfere with intercourse if they cause intermittent or prolonged bleeding. Bleeding problems are side effects of the injection, the implant and intrauterine methods that significantly contribute to their discontinuation and for which currently there are no effective management options.
- These perceived disadvantages appeared to outweigh the advantages of LARCs such as high efficacy, user-independence, and non-interference with sexual intimacy, as suggested by the relatively low uptake of LARCs by these young women. Although lots stated STI prevention was important when choosing contraception not many actually used condom.

Williamson et al (2009) conducted interviews with 20 young women in Scotland:

- For the injection especially, friends/partners influence choices as they report weight gain, possible infertility and delay it would take to conceive after ending injection use. Friends reported negative experiences of oral contraceptives but this didn't seem to put the participants off using this.

Kane et al (2009) conducted interviews and questionnaires with women of all ages in Lincolnshire:

- "Thirty-one (65%) of the women reported both physical and psychological side-effects from Implanon. These included excessive or constant vaginal bleeding (n = 15), mood swings or depression (n = 8), pain or bloating (n = 6), irregular periods (n = 6), weight gain (n = 5), headaches (n = 4), loss of libido (n = 3), and amenorrhoea (n = 3). One or two women also reported localised itching, breast tenderness, fatigue, hair growth, acne and nausea."
- 13 out of 48 respondents said Implanon had been removed. "Of those who had had their ETN implant removed, four had done so less than 12 months after insertion, five between 12 and 24 months, and one more that 24 months after insertion (three women did not answer this question). Reasons for removal related mainly to excessive or constant vaginal bleeding (seven women). Other reasons were to end suffering from headaches and to increase libido."
- Sixty women were asked about IUS but they were all over 20.

Glasier et al (2008) conducted focus groups with women of all ages in Scotland about their contraceptive choices:

- Women had heard of LARC but had "limited knowledge of individual methods, and relied heavily on negative, second-hand stories from friends and the media."
- There was a strongly expressed fear/dislike of needles, and side effects (headaches, premenstrual tension symptoms, bleeding changes, weight gain, bone effects were all mentioned).
- "for many of the participants, insertion and removal in the arm represented a "disgusting" concept and the method was felt to be too long term for younger women."
- "perception of poor efficacy ("heard of failures"), concern about the need for a vaginal examination, discomfort, expulsion, side effects (infection and weight gain were mentioned), effects on long-term fertility, and lack of protection against STIs."
- Even after education about LARC methods the participants were still concerned about the insertion and removal procedures, failure rates (referring once again to stories of pregnancies among users of LARC), and lack of STI protection, and they were also nervous about these methods being less known about and the requirement to attend a doctor.

How LARC is perceived in comparison to other forms of contraception

Williamson et al (2009). Interviews with 20 young women in Scotland about why they choose oral contraceptives over LARC:

- The oral contraceptive is the normal option and what young women expect to use, they seek it out.
- Feel in control on the oral contraceptive, also like the menstrual regulation.
- Friends reported negative experiences of oral contraceptives but this didn't seem to put the participants off using this.

Glasier et al (2008) Interviewed women of all ages in Scotland about their contraceptive choice:

- They were embarrassed to discuss contraception so tended to go and ask for the pill and were 'given what they asked for' rather than discussing contraceptive options.
- They perceived GPs and not very knowledgeable about contraceptive option.

Removal of implants

Lipetz et al (2009) looked at cost effectiveness of Implanon in Wales and reviewed case notes of 400 women who had had Implanon fitted:

- They found 27% of implants were removed in the first year and 37% retained the implant until the expiry date.
- 30% of patients had their implant removed because of side effects; the majority of these did not receive any treatment for the side effects.
- Average duration of use in this study was 2.02 years.
- Real life cost-effectiveness was better than the NICE figures but NICE expected lower discontinuation rates.

Bharadwaj et al (2012) survey of young women in north London CASH clinic found that several contraceptive methods, including LARCs, had been used by surveyed young women in a short span of reproductive life. They think this suggests that the side effects they experienced and the poor quality of the counselling that preceded their initiating usage of a given contraceptive contributed to their switching methods.

Lakha (2006) looked at discontinuation rates for implants in 324 women in Scotland:

- "Data were available for 85% of the women. Continuation rates were 89% at 6 months, 75% at 1 year, 59% at 2 years and 47% at 2 years and 9 months".
- "Of the 68 women who discontinued Implanon within 1 year, 62 (91%) did so because of unwanted side effects, the most common being frequent and/or unpredictable bleeding (42, 62%). Almost half changed to a less-effective method of contraception".

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