Authors

Joanne Cull, National Institute for Health Research Wellbeing of Women Doctoral Fellow

School of Community Health and Midwifery, University of Central Lancashire, Preston, PR1 2HE. JCull@uclan.ac.uk

Dr Abigail Easter, Senior Lecturer in Maternal and Newborn Health, King's College London

Department of Women and Children's Health, King's College London, School of Life Course Science, Faculty of Life Sciences & Medicine, King's College London, 10th Floor, North Wing, St. Thomas' Hospital London, SE1 7EH. abigail.easter@kcl.ac.uk

Word count (excludes figures and tables; includes additional references but not references to studies included in this review): 2,617

Title

Post-placental IUD insertion (PPIUD): what do women think?

Summary of article

There are calls for post-placental intrauterine device insertion (PPIUD) to be routinely offered in the UK.

A systematic review was undertaken to ascertain the views of childbearing women and their partners on PPIUD. Data were thematically analysed. Nine papers were included in the review. Six themes were generated: knowledge of PPIUD; fear of side effects; social influences; trust; supporting continuation; and reproductive justice.

Services should be designed with reproductive justice in mind. Contraceptive counselling should include information on common concerns about the IUD.

Background

Women are highly vulnerable to unplanned pregnancy in the postnatal period, and can find it challenging to access contraceptive services with a newborn (Heller et al., 2016). Improving access to contraception in the postnatal period could reduce unintended pregnancies and resulting abortions, enable improvement of maternal health prior to future conceptions, and facilitate optimal birth spacing.

Post-placental intrauterine device insertion (PPIUD) – insertion of either an intrauterine device (copper coil) or intrauterine system (Mirena or Jaydess coil) immediately after either vaginal or caesarean birth - is safe and effective (Lopez et al., 2015). PPIUD is compatible with breastfeeding, associated with less pain and fewer side effects than later insertion, and provides long-acting yet reversible contraception (Whitaker & Chen, 2018). As a result, there have been calls for PPIUD to be routinely offered in the UK (Faculty of Sexual and Reproductive Healthcare, 2017).

In order to provide women-centred, high quality PPIUD services, including appropriate counselling, it is important to understand what factors affect women's decisions to accept or decline PPIUD. A systematic review and metasynthesis of existing qualitative evidence was undertaken to answer the question: what are the views of childbearing women and their partners on immediate postpartum contraceptive services?

Methodology

This review was registered in Prospero (reference: CRD42019148030). We searched MEDLINE, CINAHL, EMBASE and Maternity and Infant care (MIC) database for papers which explore women and their partners' views on PPIUD. Reference checking and citation tracking were carried out to locate additional relevant papers. Grey literature was searched using OpenGrey.

Primary studies using qualitative study designs and mixed methods studies where the qualitative findings could be extracted from the results were eligible for inclusion in the study. Studies which explored childbearing women and their partner's views of PPIUD were included. Studies which concerned IUD insertion outside the immediate postpartum period were excluded.

Studies were screened against the inclusion criteria by the first reviewer (JC). Two reviewers (LJ and AJ) independently screened a 10% sample of search results for eligibility. Thematic analysis was carried out using the method developed by Braun & Clarke (2006). The quality of the qualitative papers was assessed by the first reviewer using the Critical Appraisal Skills Programme (CASP) quality assessment tool for qualitative studies (2018). Two reviewers (AJ and LJ) then independently assessed the quality of a random sample of 20% of the qualitative papers and 20% of the implementation description papers. Studies which met the inclusion criteria were included irrespective of study quality.

In order to enhance the rigor of the review, the first author explicitly considered her own views about PPIUD, informed by her role as a midwife, and how those views might influence the design and conduct of the study and interpretation of findings. Involvement of the second author, who is not a midwife, helped minimise this bias within the review.

Results

We identified 2,612 unique references, assessed 80 full-text articles, and included nine papers in this systematic review and evidence synthesis (Figure 1). Study characteristics of the papers are shown in table 1. The studies included antenatal, postnatal and reproductive age women, of all parities, living in rural, suburban and urban areas. Participants included PPIUD users, discontinuers, and non-users. The papers were published between 2015 and 2020. Four of the studies were carried out

in Africa, two in Nepal and three in the US: data collection was by interview or focus group. Studies which concerned the IUD generally, rather than in the immediate postpartum period, were excluded, but two studies collected women's views of the IUD both in general and in this period (Robinson et al., 2016 and Willcox et al., 2019).

Figure 1. PRISMA flow diagram

<Insert figure 1 here>

Table 1. Characteristics of included studies

Authors	Year	Setting	Data collection	Participants*
Bryant, et al.	2015	Malawi	In-depth interviews	19 women and 10 male partners (comprising IUD users, discontinuers and non-users)
Carr, et al.	2017	New Mexico	Semi-structured interviews	21 women who had received PPIUD
Huber-Krum, et al.	2019	Tanzania	In-depth interviews	20 antenatal women who had been offered PPIUD, and 20 postpartum women who had chosen PPIUD
Mann, et al.	2019	South Carolina	Semi-structured interviews	25 women who had given birth within the last 2 years and been offered PPIUD
Puri, et al.	2020	Nepal	In-depth interviews	13 women who had discontinued IUD use and 12 women who were continuing to use PPIUD 9 months or longer after insertion
Robinson, et al.	2016	Ghana	Focus groups	5 focus groups with a total of 41 community members, comprising men and a mix of pregnant, postpartum and reproductive age women
Sznajder, et al.	2020	Baltimore	Semi-structured interviews	17 English and Spanish PPIUD users
Thapa, et al.	2019	Nepal	In-depth interviews	43 mothers within 6 weeks of giving birth (comprising PPIUD users, discontinuers and non-users)
Willcox, et al.	2019	Rural Uganda	Semi-structured interviews	A total of 80 parents in the antenatal or postnatal periods

***** Excluding healthcare providers

Key themes

A thematic map can be found at Figure 2 (image credit: Slidesgo.com and Freepik.com). Six key themes were identified: knowledge of PPIUD; fear of side effects; social influences; trust; supporting continuation; and reproductive justice.

Figure 2. Thematic map

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Knowledge of PPIUD

Past experience was a key determining factor in contraceptive choice (Bryant et al., 2015; Carr et al., 2018). Respondents to a number of studies had little knowledge of PPIUD or the IUD more generally, and were hesitant to adopt an unfamiliar method of contraception (Carr et al., 2018; Robinson et al., 2016; Bryant et al., 2015; Huber-Krum et al., 2019; Willcox et al., 2019). Where women had limited knowledge of PPIUD, their attitudes were based on what they had heard from family, friends and the wider community (Robinson et al., 2016; Thapa et al., 2019.) Study respondents cited key benefits of PPIUD as the convenience of single visit insertion, the 'forgettability' of the method, the extended protection afforded, immediate return to fertility on removal, and the fact that no resupply is needed (Huber-Krum et al., 2019; Carr et al., 2018; Sznadjdera et al., 2020; Bryant et al., 2015). Impact on lactation was important to women (Huber-Krum et al., 2019; Willcox et al., 2019).

Fear of side effects

Participants in all studies reported concerns around potential side-effects. Some of these concerns are rooted in myth, such as the belief that the IUD can cause sterility or cervical cancer, or migrate to another part of the body or brain (Willcox et al., 2019; Huber-Krum et al., 2019; and Bryant et al., 2015). There was a widespread misconception that early postpartum use of the IUD is dangerous, or that contraception

is not necessary until menstruation has recommenced (Thapa et al., 2019; Willcox et al., 2019). In contrast to the common worry of women in western countries that contraception will lead to weight gain, African women worried it would lead to weight loss (Robinson et al., 2016). Huber-Krum et al. (2019) noted that fear of side effects often prevented women choosing PPIUD, and Bryant et al. stated, "Regardless of whether they were using the IUD, a pervasive theme that affected decision-making was fear. Almost all of the women expressed specific fears about the IUD… Fear was often reinforced by what was read in the consent form […] which contained basic information on rare risks of IUD insertion, including uterine perforation, expulsion and pregnancy" (2015, p.52).

Social influences

In studies carried out in Western countries, it was generally found that women self-selected contraceptive methods to meet their needs and desires, while in African and Asian studies, partners and family - in particular mothers-in-law - were commonly part of the decision making process (Sznajder et al., 2020; Willcox et al., 2019; Puri et al., 2020; Bryant et al., 2015; and Robinson et al., 2016). Respondents to several studies worried about the impact of PPIUD on their sexual relationships (Robinson et al., 2016; Huber-Krum et al., 2019; Willcox et al., 2019). Concerns included the effect of prolonged bleeding, pain for themselves and their partners during intercourse, sexual incompatibility after insertion, or that the method would reduce their libido. While some female respondents in Robinson et al. (2016) noted a preference for a female clinician to insert the IUD, male partners responding to the same study expressed indifference to the provider's gender.

Trust

Women who trusted their healthcare provider and were satisfied with the quality of counselling received were more likely to choose and continue the PPIUD (Thapa et al., 2019; Huber-Krum et al., 2019; Mann et al., 2019; Sznajdera et al., 2020; and Bryant et al., 2015). Sznajdera et al. (2020) noted that for women in this study, information on device removal was critical in choosing PPIUD. Women in Baltimore reported receiving contraceptive counselling at almost every antenatal appointment: this was acceptable to them, and they believed that discussing contraceptives with a variety of professionals counteracted the bias of individual providers towards specific methods (Sznajdera et al., 2020). Several of the women interviewed did not make their final decision until late in the pregnancy and appreciated having time to consider their options (Sznajdera et al., 2020). Conversely, a number of women reported that they felt pushed to discuss PPIUD during labour, and that they felt this timing to be insensitive, because they were in pain, and in some cases had already made a decision to use another method or no contraception at all (Mann et al., 2019).

Supporting continuation

Participants who did not have a good relationship with their healthcare providers, or felt they had not received good quality counselling, were both less likely to choose PPIUD, and more likely to discontinue the method (Carr et al., 2018; Huber-Krum et al., 2019; Mann et al., 2019). Several studies found that side effects, such as menstrual irregularity and abdominal pain, were a primary motivation to discontinue use of the PPIUD (Puri et al., 2020; Huber-Krum et al., 2019; Thapa et al., 2019).

Advance information and advice on what to expect in the first weeks after insertion appears crucial to support continuation (de Caestecker et al., 2018; Huber-Krum et al., 2019; Puri et al., 2020). Huber-Krum et al. explored this issue in detail in their 2019 study in Tanzania. The researchers found that women who were provided with information about potential problems, proactively followed up, and supported to manage side-effects, were more likely to continue use of the method. Conversely, some study participants who had experienced expulsion were frustrated that they had not been adequately counselled about this risk, and the subsequent mistrust prevented them from choosing to have another IUD inserted.

Reproductive justice

Some respondents perceived their healthcare provider as coercive, or doubted their motivations, with one stating: “They just keep promoting these long-term methods. It’s like they’re getting a commission or something. I always wondered that” (Mann et al., 2019, p.167). In South Carolina, a 26 year-old Black woman with three children described her experience: “the whole time she was trying to offer me Mirena… I just wanted my tubes tied, but the first time I asked them about it, they said I wasn’t old enough. The second time, after I had [my second child] I asked, and they said no surgeon would do it because of how young I was. After I had [my third child] 4 years later, they said they forgot to do it. It was just crazy… you can’t just say you need to stop having babies, but I don’t want you to stop all the way having babies, so no tubal litigation, but here’s some Mirena. No. No” (Mann et al., 2019, p.167). Some women were concerned that healthcare providers would be reluctant to remove the PPIUD on request, leaving them regretting their decision (Willcox et al., 2019). Three

participants in the Mann et al. (2019) study carried out in South Carolina wanted to have their PPIUD removed but faced obstacles. One felt she would need to convince her doctor to remove it; her distress is encapsulated here: “So far, I despise it with everything in my spirit” (p.169). In Baltimore, some women with public health insurance were suspicious that contraception was offered with the underlying intention by the state of controlling their fertility (Sznajder et al., 2020).

Discussion

Women with good knowledge and understanding of PPIUD often found it an attractive option due to the forgettability and reversibility of the method and the ability to continue breastfeeding. However, widespread myths and concerns about the method were noted: for example, women commonly worried that the IUD could migrate from the uterus to the heart, cause cancer, or impact on sexual relationships. Crucially, these issues may not be commonly addressed in contraceptive counselling, and women may not have the confidence to bring them up. In studies set in Africa and Asia, it was frequently found that partners, and even the wider family and community, played a role in contraceptive decision-making, suggesting it is also important to address their concerns.

Issues of reproductive justice around clinicians’ biases and device removal were commonly raised in these papers. Gomez & Wapman (2016) and Yee & Simon (2011), who carried out qualitative studies into women’s perceptions of contraceptive counselling, found that women of colour or low-income women often felt pressured by their healthcare provider into using long-acting reversible contraception. Thiel de

Bocanegra, et al. (2017) carried out a prospective cohort study of nearly 200,000 low income women in California and concluded that significant racial/ethnic disparities among those receiving postpartum contraception, while Amico, et al. (2016) confirmed our finding that some women face barriers to early IUD removal.

This review has highlighted the importance of applying a reproductive justice framework to PPIUD implementation and monitoring. Important work has been carried out in this area by researchers in America, including Mann, et al. (2019), Harper, et al. (2017), and Sznajder et al. (2020). Future qualitative studies of childbearing women from Europe, Asia and Africa should explore perceptions of reproductive justice with regards to PPIUD, and on the development of culturally appropriate PPIUD models which can be replicated across facilities. This must include timely and free of charge removal of devices for desiring women. There is a growing focus on advancing equity through implementation science, and more work is needed on how to measure equity as an outcome of PPIUD implementation (DuMont et al., 2019).

Conclusion

Contraceptive counselling should include information on common concerns about the IUD, including its impact on sexual relationships. Including partners in counselling may increase uptake. Services should be designed with reproductive justice in mind, and future research should focus on how reproductive justice principles can be applied and monitored in PPIUD services.

Supplementary information

The following information is available from the first author by request:

- Full search strategies for each electronic database
- Assessment of methodological strengths and limitations

Acknowledgements

The authors thank Ayesha Jeary and Louise Jolly for their contribution to independently screening study selection and quality appraisal.

Dr Easter is supported by the National Institute for Health Research (NIHR) Applied Research Collaboration South London (NIHR ARC South London) at King's College Hospital NHS Foundation Trust. Joanne Cull is supported by a National Institute for Health Research Wellbeing of Women Doctoral Fellowship. The views expressed are those of the authors and not necessarily those of the NIHR, the Department of Health and Social Care, or Wellbeing of Women.

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