Sexual & Reproductive Healthcare 19 (2019) 71–77

Contents lists available at ScienceDirect

Sexual & Reproductive Healthcare

journal homepage: www.elsevier.com/locate/srhc

Motivators of contraceptive method change and implications for long-acting reversible contraception (non-)use: A qualitative free-text analysis

Jacqueline Coombe*, Melissa L. Harris, Deborah Loxton

Research Centre for Generational Health and Ageing, University of Newcastle, University Drive, Callaghan, NSW 2308, Australia

ARTICLE INFO

Keywords:
Long-acting reversible contraception
Contraceptive change
Women
Australia
Qualitative research
Free-text comments

ABSTRACT

Objective: To develop a greater understanding of the motivators of contraceptive method change over time for young Australian women, with a particular interest in long-acting reversible contraception (LARC) use.
Method: Free-text comments from the Contraceptive Use, Pregnancy Intention and Decisions (CUPID) Study were used to explore the reasons for contraceptive method change among women who reported one or more contraceptive changes across the three CUPID surveys.
Results: 512 women reported making at least one contraceptive method change, with 740 comments explaining these changes between them. Participants reported a multitude of reasons motivating their contraceptive change. Five key themes were developed to explain these motivators: the *natural, sexual* and *fertile body, specific contraceptive characteristics* and *other important people*. Findings suggest that women's decisions to switch or discontinue a contraceptive depended largely on her ability (and desire) to juggle its impact on her sexual, fertile and natural body. Importantly, the transient and fluid nature of contraceptive practices were demonstrated, as the women adjusted their method to suit their needs at the time.
Conclusion: Regarding LARC use, these findings suggest that rather than being appealing, the 'temporarily permanent' nature of these methods may be unappealing and incongruent with the needs of some women.

Introduction

Many Australian women use some form of contraception [1]. However contraceptive use is not static over time, and it is well known that patterns of contraceptive use change as women age. In Australia, young, nulliparous women have been found to be more likely to use the oral contraceptive pill (hereafter, the Pill) and condoms, with rates of use declining over time, while permanent methods and intrauterine devices (IUDs) are more popular among women aged 30 years and older [1]. In addition, it is clear that birth, abortion and miscarriage also influence contraceptive use as women experience these reproductive events over time [2], as do fertility intentions [3]. Importantly, a recent quantitative study conducted in the USA identified the rapidity at which fertility intentions can change, with just over half of the study participants, (women aged 18–39 years at baseline) reporting a change in attitude towards pregnancy across the 18-month survey period [4].

Although the broad patterns of contraceptive use are clear, the aforementioned study clearly demonstrates the importance of examining motivators of contraceptive method change over relatively short periods of time in order to capture the nuances of contraceptive practices. Given high rates of reported contraceptive use at the time of unintended pregnancy (in one Australian study, almost three quarters (73.4%) of women reporting an unintended pregnancy were using contraception at the time [5]), a more nuanced understanding of actual contraceptive use, including discontinuation and change, is needed. This may provide a better understanding not only of how and why women decide to change their contraceptive method, but also how to better assess their contraceptive needs.

Building on the work of Wigginton, Harris, Loxton and Lucke [6], and in combination with calls to increase LARC uptake among Australian women [7], this analysis sought to develop a greater understanding of the motivators of method change over time for young Australian women using three waves of survey data from the Contraceptive Use, Pregnancy Intention and Decisions (CUPID) Study. Using responses to an open-ended question regarding reasons for contraceptive change, we were particularly interested in exploring what these comments could tell us (if anything) about long-acting reversible contraception (LARC; IUDs, contraceptive implants, contraceptive injections), (non-)use among young women.

* Corresponding author.
E-mail addresses: jacqueline.coombe@newcastle.edu.au (J. Coombe), melissa.harris@newcastle.edu.au (M.L. Harris), deborah.loxton@newcastle.edu.au (D. Loxton).

https://doi.org/10.1016/j.srhc.2018.12.004
Received 7 September 2018; Received in revised form 11 December 2018; Accepted 13 December 2018

Methods

The CUPID Study

The CUPID Study is a longitudinal, population-based cohort study which recruited 3795 Australian women aged 18–23 into the baseline survey in 2012. Participants were surveyed an additional two times, with data collection concluding in 2016. Survey invitations were sent roughly six months after previous survey completion. Baseline recruitment was monitored against the Australian Bureau of Statistics census data, resulting in a broadly demographically representative sample, with the exception of a greater proportion of educated women than the general population. Participants were eligible for participation in the initial survey if they were aged between 18 and 23 years and living in Australia. Participants were recruited using various online and offline methods, although Facebook advertising was most successful. Full details regarding CUPID have been reported elsewhere [8]. Ethics approval was granted by The University of Newcastle (H-2011-0331), The University of Queensland (2011001055), Family Planning NSW (R2011-05) and the Australian Government Department of Health (31/2013). All participants gave consent to participate in the study by checking the "yes" box at the end of the online consent statement [8].

Sampling frame

All three CUPID surveys formed the sampling frame for this analysis. Participants were eligible for inclusion if they had completed all three surveys ($n = 1224$), with a response time between surveys of greater than 3 months and less than 1.5 years. Participants were excluded if they (1) had missing data about their contraceptive use in the past six months or about making any contraceptive change at any survey, and (2) if they indicated that they were using a permanent form of contraception (as this does not allow for contraceptive change) or emergency contraception as their primary method (as this is not recommended for regular use [10]). Women were then categorised as making no change at any survey and making at least one change at one or more surveys.

Analysis

Statistical methods

Frequencies of the sociodemographic and reproductive health variables were calculated to provide demographic information at baseline using Stata version 13 [11]. Participant contraceptive use at each survey was divided into the following groups, based on most effective method reported: (1) LARC user: including women who used a Hormonal IUD, Copper IUD, contraceptive implant or contraceptive injection; (2) Other contraceptive user: including women who used a short term hormonal method (the Pill, mini pill and vaginal ring), a barrier method (condoms and diaphragms), withdrawal or a natural family planning method; and (3) No method: women who did not report using any method of contraception. Effectiveness was based on typical use rates [12].

Qualitative analysis

Initial analysis. Participant identification aliases (IDALIAS), contraceptive use (according to the categories: LARC, Other, No Method) at each time point and text responses to the question about changing contraception (*"Have you changed, or started to use, contraception (protection) in the last 6 months? If yes, why?"*) were exported into NVivo qualitative software [13]. Our focus was on how women described their contraceptive changes, without limiting these changes to specific methods. In this way it was possible to identify how women use their contraception in their daily lives, allowing us to then make inferences about what this meant for specific method use. A thematic analysis approach utilised by Braun and Clarke [14] was used. Each text response was systematically coded according to pertinent themes in the data, and once the whole data set was coded, the codes were organised into broader themes which reflected different aspects of the data. Initial themes were then organised and defined in an iterative process, with the authors checking and rechecking the data fit the themes as they were developed. A thematic map was developed as were clear definitions for each theme.

Secondary analysis. While qualitative free-text comments are increasingly becoming accepted as a useful and insightful form of qualitative data, there is little guidance regarding how to conduct analysis with the data, and particularly longitudinal data. Although the initial analysis described above broadly aligns with the process followed by others using free-text comments, the following differs by conducting a secondary analysis to examine the concept of time (for other examples of using longitudinal free-text data, see [15]). Given the nature of the data, (i.e. comments from the same group of women answering the same question over time) it was possible to tease out a more nuanced explanation of how women negotiate motivators of contraceptive change, and how they shift over time. Thus we conducted a second analysis to understand more fully the interaction between the key themes identified in the initial analysis by examining comments only from women who had provided text comments at two or more surveys. Utilising the thematic map developed in the initial analysis, the secondary analysis focused on if and how these initial themes changed over time for women reporting multiple contraceptive changes.

All authors met throughout both phases of analysis to discuss emerging themes and direction of the results. The guidelines proposed by Kitto, Chesters and Grbich [16] were utilised to ensure quality and rigour in the project. Results from both stages of the analysis are presented in detail below.

Results

In total, 512 women were included in this analysis, with 740 free-text comments between them. All of these women reported at least one contraceptive change, with nearly half of these women (n = 223) reporting two or more changes across the three surveys. The demographic characteristics of the women included in this analysis, versus the rest of the CUPID sample at baseline are presented in Table 1. In brief, women included in this analysis were (at baseline) an average of 20 years old, lived in a major city, had completed high school, were studying, working, or both, had never been pregnant, and were in a relationship.

In terms of contraceptive use, the majority of women included in this analysis reported using other methods at all three time points including the pill, condoms and withdrawal ($n = 291$). This was followed by LARC use at all three surveys ($n = 60$). Women switching from another method to a LARC at either survey 2 ($n = 33$) or survey 3 ($n = 28$) were the next most common patterns of method use, followed by women switching from a LARC to another method at survey 2 ($n = 22$). Other combinations of contraceptive change across the three surveys were reported by the remaining 221 women. See Supplementary Table 1 for further detail regarding patterns of contraceptive use reported across the three surveys.

Supplementary data associated with this article can be found, in the online version, at https://doi.org/10.1016/j.srhc.2018.12.004.

Initial analysis: motivators of method change

The initial analysis revealed a complex interplay of factors motivating method change. Five overarching themes were developed to describe these motivators; the interlinking concepts of the *natural, sexual* and *fertile bodies*, in the context of *specific contraceptive characteristics* and *other important people*; their doctors, partners and friends.

Table 1
Characteristics of participants included in the free-text analysis versus non-participants at baseline.

	Participants (n = 512)	Non-participants (n = 3283)
Age (Mean ± SD)	20.74 (1.70)	20.64 (1.73)
Range	18–23 years	18–23 years
	N (%)	**N (%)**
Area of residence		
Major city	351 (68.55)	2064 (62.87)
Regional	147 (28.71)	1001 (30.49)
Remote	11 (2.15)	99 (3.02)
Missing	*3 (0.59)*	*119 (3.62)*
Highest education		
Year 12 or below	275 (53.71)	1743 (53.09)
Certificate/diploma	107 (20.90)	882 (26.87)
University	129 (25.20)	574 (17.48)
Missing	*1 (0.20)*	*84 (2.56)*
Employment status		
Not working	14 (2.73)	168 (5.12)
Unemployed	16 (3.13)	121 (3.69)
Studying	114 (22.27)	677 (20.62)
Working	146 (28.52)	1062 (32.35)
Working & Studying	222 (43.36)	1184 (36.06)
Missing	*0 (0.00)*	*71 (2.16)*
Distance to health services		
< 30kms	496 (96.88)	3052 (92.96)
> 30kms	11 (2.15)	82 (2.50)
Missing	*5 (0.98)*	*149 (4.54)*
Transport to health services		
Difficult	38 (7.42)	327 (9.96)
Easy	464 (90.63)	2831 (86.23)
Missing	*10 (1.95)*	*125 (3.81)*
Medicare card status*		
Own/have copy	444 (86.72)	2624 (79.93)
Don't own/don't have copy	66 (12.89)	569 (17.33)
Missing	*2 (0.39)*	*90 (2.74)*
Pregnant ever		
Yes	79 (15.43)	637 (19.40)
No	422 (82.42)	2102 (64.03)
Missing	*11 (2.15)*	*544 (16.57)*
Relationship status		
Single	115 (22.46)	803 (24.46)
In a relationship but do not live together	205 (40.04)	1129 (34.39)
In a relationship and living together	135 (26.37)	834 (25.40)
Engaged/married	57 (11.13)	366 (11.15)
Missing	*0 (0.00)*	*151 (4.60)*

* Medicare is the universal, public health insurance system in Australia, which provides free or subsidised services to Australians who access these services via a Medicare Card. Individuals can have their own card, or be listed on the same card as other family members (and thus have a 'copy' of their Medicare card).

The natural body

This theme encompassed comments about the perceived or real impact of contraceptive use on the participants' bodies and how this impacted their perception of their bodies, or how they expected their bodies to be. We use the term 'natural' here to refer to the impact of contraception on what the participants considered as natural or 'normal' for their body, and comments coded here spanned for example, switching between hormonal methods due to wanted or unwanted side effects, to taking a break from hormonal contraception all-together.

Intangibly, the impact of contraception on the body manifested itself in a prevailing discourse about certain contraceptive methods being '(not) right for me'. This was generally not described in any detail, but rather many women reported changing their method because it 'wasn't working' or 'it wasn't right'. For example, one participant said *"Changed pill. It wasn't the right one for me."* (IDALIAS 803125, Survey 2). In comparison, there were women who expressed finding 'the right method for me' as the ultimate goal of changing methods, or as something they had achieved with their current method, for example: *"Swapping between brands of the contraceptive pill to find one that worked for me."* (IDALIAS 846599, Survey 2). Although these comments were in no way descriptive about what exactly was so right or not right about these methods, finding the 'right' method, that is, finding a method that suited their body, was the clear motivator for change.

These comments also suggested that a return to the 'natural body' was a motivator for contraceptive change, with many women reporting the desire to take a break from hormonal contraception: "*I have stopped using the Pill as I wanted a break from the hormones."* (IDALIAS 823190, Survey 3). Positioning contraception as 'unnatural', some women reported taking a contraceptive break in order to get back into tune with their 'natural cycle': *"I was on the pill but stopped it because I want to let my body cycle naturally and get to know my own body more."* (IDALIAS 835767, Survey 2). For some women, a 'natural cycle' was tangibly achievable via regular predictable periods, and the absence of a 'natural cycle' was a motivator of change: *"It* [the Pill] *messed with my regular cycle, so I'd have my period for a few months at a time, very heavy for certain time-frames and I had spotting most days"* (IDALIAS 800565, Survey 3). Relatedly, undesired side effects, such as weight gain, mood changes, irregular or heavy bleeding and acne were given as reasons for method change, as were desired side effects, such as the management of reproductive conditions such as Endometriosis or Polycystic Ovary Syndrome.

The sexual body

Factors relating to the sexual body, including sexual experience and pleasure, as well as relationship status and sexual activity, were also cited as reasons for contraceptive change. Discontinuing a method due to its impact on the participant's sex life was common, particularly if the method was perceived to be having a negative impact on her libido: *"Got an Implanon taken out because I felt it was negatively affecting my libido"* (IDALIAS 857535, Survey 1). The women also spoke about the importance of sexual pleasure, particularly in regards to stopping condom use because they, their partner or both thought it reduced their pleasure or enjoyment: "*My boyfriend and I decided to stop using condoms because sex is better for both of us without them."* (IDALIAS 832072, Survey 2). Indeed, some women specifically reported changing to a hormonal method of contraception so they no longer had to use condoms: *"Had implanon implanted 5 months ago so my partner and I didn't have to use condoms*" (IDALIAS 840984, Survey 1). Being, or not being sexually active was another reason for change: *"Started using condoms because I started having sex"* (IDALIAS 835595, Survey 1), as was relationship status *"New partner, started using condoms. Still and always using the pill."* (IDALIAS 831843, Survey 2). Importantly, relationship status was a clear indicator of method use; condoms were commonly commenced in new or casual relationships, while women in long-term relationships reported using condoms less or discontinuing them all together: *"We do not use condoms all of the time - our relationship is monogamous and I am on the pill."* (IDALIAS 806320, Survey 2). Women who reported a relationship breakdown or change (i.e. their partner moved away) often reported discontinuing their method: "*My relationship broke-up in April so I am no longer using any contraceptive"* (IDALIAS 822361, Survey 2).

The fertile body

Managing fertility was another key driver of contraceptive change; these comments broadly focused on the importance of pregnancy prevention motivating method change, or the desire to fall pregnant as a reason for discontinuation. For many of the women reporting pregnancy prevention as the reason for method change, this often meant starting a more effective method of contraception, usually a LARC.

"I changed from my pill to implanon (implant rod) because its more effective then [sic] the pill and I wanted more protection as my partner and I don't plan on getting pregnant at all in the next three years and then when its due to be taken out I'll put another one in for another three years"

(IDALIAS 808978, Survey 2)

Women intending to conceive or who reported being pregnant reported discontinuing their method: *"I stopped using the implanon to fall pregnant."* (IDALIAS 864789, Survey 3), while women with particular reproductive experiences, including abortion and miscarriage, reported various patterns of stopping and starting contraception: *"We have been trying to get pregnant, had to use contraception for a short period after suffering a miscarriage"* (IDALIAS 803416, Survey 2). There were also a handful of responses that gave potential future reproductive experiences, particularly infertility, as the reason for stopping or changing their method. In all comments regarding infertility, the method discontinued was the Pill: *"Am now off the pill as I am scared of infertility"* (IDALIAS 827226, Survey 2).

Specific contraceptive characteristics

Whilst the above key themes, the *natural, sexual and fertile* bodies, were significant drivers of contraceptive method change, these motivators were bounded by the available contraceptive methods and their specific characteristics. Many women reported changing their contraceptive method due to wanted or unwanted characteristics of specific methods. These characteristics were inherent qualities of the method and included convenience, longevity and hormonal profiles, as well as access to the method and its cost. The perceived convenience of a method was a common reason given for changing methods, and overall, most comments giving convenience as the reason for contraceptive change were switching from a short term method (i.e. the Pill or condoms) to a LARC: "*I was on the pill, but found it hard to keep a routine. I researched and consulted with doctors, and a month ago, I underwent the procedure for the implant.*" (IDALIAS 820795, Survey 2), as were women who reported longevity of the method as their motivator for change: *"I changed from the pill to the implant because it's easier and lasts for longer."* (IDALIAS 888883, Survey 1). Ease of use was also given as a reason for changing methods: *"We changed from condoms to me using the pill because we definitely don't want kids yet and thought the pill would be easier and more effective."* (IDALIAS 831583, Survey 2).

Women looking for a non-hormonal or less hormonal method often reported choosing the Copper IUD: "*Started the copper IUD, due to wanting an effective non-hormonal method…"* (IDALIAS 877814, Survey 1). As well as the inherent characteristics of particular methods, access to a method as well as its cost were also important factors associated with contraceptive change. Some women talked about having to stop their preferred method because they could not get their prescription renewed, they could not get to a pharmacist, or their pharmacist did not have what they needed: *"Couldn't get to a doctor to get another prescription for the pill."* (IDALIAS 807794, Survey 3), while others spoke about the cost of visiting their GP to renew their prescription, or the cost of the method itself as a reason for change. Of note, methods such as the vaginal ring and Yasmin brand of contraceptive pill were often mentioned by the women as too expensive (neither of which are subsidised to consumers in Australia): *"I was on the NuvaRing, however I decided to come off it as the price was too expensive while I'm a student."* (IDALIAS 808167, Survey 1).

Other important people

Doctors, partners, and to a lesser extent, friends were also an important factor in method change. Discussions with doctors or doctor recommendations were often reported as the reason for contraceptive change. These responses ranged from simple statements indicating that the change was recommended to them by a health professional, to more detailed responses which outlined the reason for the discussion with their doctor: *"I was on the pill but have very recently switched to Implanon because I suffer from migraines and my GP advised me I should no longer take the pill."* (IDALIAS 886262, Survey 2). Discussions with partners were also reported as the facilitator of method change, as were partner preferences themselves. For example, one participant said: *"I changed different pills (Yasmin to the mini pill) but was getting even worse migraines then before, so my partner and I discussed and decided I would come off the pill and just use condoms."* (IDALIAS 839935, Survey 2). In comparison, conversations with friends concentrated more so on experiences with certain methods, motivating some of the women to consider changing to these methods: *"I found out about Implanon from a friend and it seemed like a cheaper, easier option than the pill."* (IDALIAS 832072, Survey 1). Overall these comments were not common; conversations with doctors and partners were far more prevalent motivators of method change.

Secondary analysis: motivators of contraceptive change over time

Juggling the natural, sexual and fertile bodies

By examining the comments from women who reported more than one contraceptive change linearly, it was possible to ascertain how women juggled their contraceptive needs. This was particularly interesting given the relatively short timeframes between surveys (approximately six months). For the below participant, at Survey 2 the regulation of her periods (and thus management of side effects) was the motivator for her method change. By Survey 3, the participant had stopped using the vaginal ring because of its expense and because she was not currently sexually active.

Survey 2: *"I had my implanon taken out because after just over two years of having it in I was bleeding constantly for weeks without break and I wanted to be able to have a cycle I could predict and that's why I changed to nuvaring…"*

IDALIAS 813242

Survey 3: *"I was on the Nuvaring, however I stopped using this at the beginning of July (so approximately three months so far) because of the cost of getting it, and since I am single and don't have a regular sexual partner. I plan on using condoms if I begin to have sex again. If I am having sex on a regular basis, with the same partner/get into a relationship then I will start using the ring again. The last time I had sex I was still on the Nuvaring."*

IDALIAS 813242

In another example, the participant reports changing to the contraceptive implant for greater pregnancy prevention at Survey 1, but at Survey 3 has stopped using this method due to unspecified adverse side effects. Whilst pregnancy prevention was an important motivator for method change at Survey 1, it was not enough to outweigh the participant's level of tolerance to the resultant side effects. Hence at Survey 3 removing her contraceptive implant due to side effects outweighs continuing its use for greater pregnancy prevention.

Survey 1: *"Changed from the pill to implant for greater protection - was forgetting pill"*

IDALIAS 864088

Survey 3: *"Due to side effects of the implanon I chose to have it removed."*

IDALIAS 864088

Another participant reports stopping Pill use at Survey 1 due to the impact it had on her body, but commencing use again at Survey 3 as sex with condoms was less desirable, illustrating her attempts to find the right balance between the side effects she felt she could cope with and the impact of the method on her sex life. She said:

Survey 1: *"Yes I was on the Pill but changed to using condoms because I didn't like the effect of the pill on my body"*

IDALIAS 843934

Survey 3: *"I changed from using comdoms [sic] to the pill because it was more pleasurable for me and my partern [sic]."*

IDALIAS 843934

These comments highlight the constant negotiation and re-negotiation women participate in, juggling various needs and desires in an effort to protect themselves against pregnancy. For these women, relationship status, pregnancy prevention, side effects and pleasure all motivated contraceptive change at different times and in different ways throughout the survey period, highlighting the complexity of contraceptive practices.

Fertility intention and pregnancy

Importantly, the longitudinal analysis allowed for the identification of changes in fertility intention and how this impacted contraceptive use across time. Short time frames between actively preventing pregnancy to desiring pregnancy were evidenced in a number of comments. In the below example, the participant was actively preventing pregnancy at Survey 1 by using a LARC. In Survey 2 the participant reported intentions to conceive. Although no response was recorded at Survey 3, the participant was not using any contraception at the time, suggesting she was still trying to fall pregnant, or was currently pregnant at the time of the survey.

Survey 1: *"Was on the pill, but couldn't remember to take it, so switched to the injection. Thinking of using the implant next."*

IDALIAS 805661

Survey 2: *"Trying to conceive"*

IDALIAS 805661

The short timeframes between actively avoiding pregnancy, to desiring pregnancy, and in the below example, back to avoiding pregnancy, was also demonstrated.

Survey 2: *"We started to use condoms some of the time because we sometimes feel like using them"*

IDALIAS 843453

Survey 3: *"Got prescription for contraceptive pill, took it for a month, changed mind and stopped taking pill and tried to conceive for 2 months. Unsuccessful. Changed mind again, started on the pill again this month."*

IDALIAS 843453

Planned and unplanned pregnancies were also evident. In the below example, the participant stopped her contraceptive use at Survey 1 to check that her cycle would return to normal, and was trying to conceive by Survey 3.

Survey 1: *"Stopped using pill after 4 years, was curious and worried that my cycle might not return to normal in case we decide to try for a baby."*

IDALIS 816102

Survey 3: *"We decided to try to conceive"*

IDALIS 816102

On the other hand, some participants clearly reported accidental pregnancies.

Survey 1: *"Recently (only today) started taking the mini pill."*

IDALIAS 882172

Survey 3: *"Mini-pill caused an accidental pregnancy."*

IDALIAS 882172

Whilst the above cannot provide detailed information regarding the circumstances leading to unintended pregnancies (i.e. method failure, user failure, etc.) they do give some insight into the methods used and the fertility intentions of the women prior to these experiences.

Discussion

This analysis demonstrated how the motivators of contraceptive method change shift over time, and suggests that women's choice of contraceptive method depends largely on her ability (and desire) to juggle its impacts on her sexual, fertile and natural body. These findings have specific implications for LARC (non-)use, where the 'temporarily permanent' nature of LARC may be unappealing to some.

Findings presented here demonstrate the way in which women prioritise different contraceptive needs over time, as well as the rapidity at which these needs can change. Although the impact of various contraceptive methods on individual aspects of the natural, sexual and fertile body have previously been identified, for example contraceptive continuation or switching due to wanted side effects, discontinuation due to unwanted side effects, decision making based on a methods sexual acceptability, or perceived impact on future fertility [17–20], specific to the current analysis is the identification of the interplay between these aspects, and how women prioritise different needs over time. In this way, a participant could report pregnancy prevention as the motivation for change to a more effective method at survey one (thus prioritising the protection of her fertile body and availability of her sexual body), before discontinuing that method and switching to a less effective method at a subsequent survey due to unbearable side effects (and therefore prioritising her natural body over her sexual and fertile bodies). In addition, this analysis revealed that contraceptive needs can change quickly over relatively short periods of time. This was particularly the case for those reporting relationship status or fertility intention as a motivator for method change. While the contraceptive practices associated with these life events were congruent with previously reported findings, for example condoms in casual relationships, reliance on hormonal methods in long-term relationships and transitioning on and off contraception to conceive and post-birth [2,21,22], the frequency of these changes as identified qualitatively provides further context to quantitative studies exploring the phenomenon [4].

The above findings may provide one explanation for a lack of interest in LARC methods among young women. Specifically, given that our findings demonstrate that contraceptive priorities can change and shift over quite short periods of time, these women may perhaps perceive the 'temporarily permanent' nature of LARC as unappealing and incongruent with their individual needs. This is consistent with the findings presented by Inoue et al. [23], whose sample of Australian women who had never used a contraceptive implant perceived the method to lack user control given that a health care professional is required to insert and remove the device. Similar findings were reported in a small sample of young women in the UK, who also reported perceived resistance to implant removal as a disincentive to use [24]. Although LARC increases control over potential unintended pregnancy experiences by providing long acting, highly effective pregnancy protection, they similarly reduce bodily control by removing the possibility of instant discontinuation when needs change, or when side effects become unbearable.

This analysis also revealed the importance of specific contraceptive characteristics to method use. Many women reported making contraceptive changes due to specific characteristics of the methods themselves, including convenience, longevity, ease of use, a lack of hormones, and cost. These findings are similar to those reported elsewhere; effectiveness and safety were ranked as the most important attributes among a sample of women from the CHOICE Study [25]. Importantly, a study focused specifically on interest in IUDs found that participants who reported effectiveness, lack of user action and longevity as most important to them were more likely to show interest in using an IUD [26], however a separate study also conducted in the USA found that despite reporting effectiveness as the most important contraceptive characteristic, this was not associated with the actual use of the most effective methods [27]. In the current study at least, women reporting effectiveness, convenience or longevity as their motivator of change were often transitioning to a LARC; however, the relationship between preferred characteristics and actual method use warrants further investigation.

The importance that other people play in contraceptive decision-making was also demonstrated. Doctors were identified as particularly important in the current analysis, as has also been identified elsewhere. A review of the barriers to LARC use suggested that a propensity to prescribe the Pill, a lack of insertion training and therefore, skills to insert and remove LARC as well as misperceptions around the suitability of the method for various groups of women all continue to impede LARC uptake [7], although work to reduce these barriers in Australia is underway [28]. Partners were also identified as motivating contraceptive method change, and patterns of use according to relationship status observed here are similar to those reported elsewhere: condoms in short-term relationships and reliance on hormonal methods in longer term relationships [21,22].

Given the rapidity and fluidity of contraceptive needs identified, these findings suggest that women returning for a repeat prescription or other contraceptive services may benefit from further conversation with their health care provider about whether this method continues to suit their needs and if not, support them in changing or switching to a more appropriate method. Women should also be provided with information regarding the range of contraceptive options available to them, including, but not limited to, the effectiveness of each of these methods. In our study, many women reported reasons other than pregnancy prevention as a motivator for contraceptive change; methods typically promoted for their effectiveness, like the IUD and contraceptive implant, might be considered as more feasible contraceptive options if their benefits beyond effectiveness, including a reduction in menstrual bleeding [29], or a lack of interference with sex [30], are communicated. However, the unique nature of these methods needs to be recognised; unlike the Pill, these methods are placed into the body, and women must relinquish some control of their bodies to the devices inserted into them, and rely upon a health care provider to insert and remove them. These methods are not suitable for everyone, and women should be supported to use whichever method best suits her needs, whatever that may be.

Strengths and limitations

Strengths of this study lie primarily in its use of longitudinal, free-text data to explore motivators of contraceptive method change over time. While the use of this kind of data has received criticism [31], the work presented here contributes to the growing literature attesting to the legitimacy, quality and usefulness of free-text comments as a source of qualitative data [15,32]. Our findings should also be considered within the context of its limitations, particularly the representativeness of the sample. As is typical in longitudinal health studies, the CUPID cohort is slightly overrepresented with educated women [9], and moreover, a greater percentage of the women included in this analysis reported university as their highest educational qualification as compared to the rest of the CUPID study population.

Conclusion

This analysis revealed the complex nature of contraceptive change, highlighting how contraceptive priorities can change over quite short periods of time. In relation to LARC, this desire for contraceptive flexibility may make these methods unattractive to some. In particular, the 'temporarily permanent' nature of LARC, combined with the lack of bodily control over the method may serve as disincentives for use. The quality and usefulness of longitudinal free-text comments as a source of qualitative data was also demonstrated.

Acknowledgements

We would like to thank the women who kindly shared their experiences with us. The research on which this paper is based was conducted at the Universities of Queensland and Newcastle. We gratefully acknowledge funding support from the Australian Research Council (Linkage Project Grant LP100200349), and industry partners Family Planning NSW and Bayer Australia Ltd.

Conflict of interest statement

JC was a PhD student supported by an Australian Government Research Training Program (RTP) Scholarship during the conduct of this study. MLH was previously supported by the Australian Research Council through the Linkage Project Grant (LP100200349) and DL was a chief investigator. The grant involved some cash and in-kind support from the Partner Organisations, Family Planning NSW and Bayer Australia Ltd. There was no involvement from the financial partners in the preparation of this article, the analysis and interpretation of the data or decision to submit this article for publication.

Data availability

Please contact the authors for information regarding access to CUPID data.

References

[1] Richters J, Fitzadam S, Yeung A, Caruana T, Rissel CE, Simpson JM, et al. Contraceptive practices among women: the second Australian study of health and relationships. Contraception 2016;94(5):548–55. https://doi.org/10.1016/j.contraception.2016.06.016.

[2] Lucke JC, Herbert D, Watson M, Dobson A. Contraceptive changes after reproductive events among Australian women born in 1973 to 1978: a longitudinal study from 1996 to 2009. Women's Health Iss 2011;21(6):438–43. https://doi.org/10.1016/j.whi.2011.05.003.

[3] Gray E, McDonald P. Using a reproductive life course approach to understand contraceptive method use in Australia. J Biosoc Sci 2010;42(1):43–57. https://doi.org/10.1017/S0021932009990381.

[4] Jones RK, Tapales A, Frost J. Using longitudinal data to understand changes in consistent contraceptive use. Perspect Sex Reprod Health 2015;47(3):131–9. https://doi.org/10.1363/47e4615.

[5] Coombe J, Harris ML, Wigginton B, Lucke J, Loxton D. Contraceptive use at the time of unintended pregnancy: findings from the contraceptive use, pregnancy intention and decisions study. Aust Fam Phys 2016;45:842–8.

[6] Wigginton B, Harris ML, Loxton D, Lucke JC. A qualitative analysis of women's explanations for changing contraception: the importance of non-contraceptive effects. J Family Planning Reprod Health Care 2016;42(4):1–7. https://doi.org/10.1136/jfprhc-2015-101184.

[7] Mazza D, Bateson D, Frearson M, Goldstone P, Kovacs G, Baber R. Current barriers and potential strategies to increase the use of long-acting reversible contraception (LARC) to reduce the rate of unintended pregnancies in Australia: an expert roundtable discussion. Aust N Z J Obstet Gynaecol 2017;57(2):206–12. https://doi.org/10.1111/ajo.12587.

[8] Harris ML, Loxton D, Wigginton B, Lucke JC. Recruiting online: lessons from a longitudinal survey of contraception and pregnancy intentions of young Australian women. Am J Epidemiol 2015;181(10):737–46. https://doi.org/10.1093/aje/kwv006.

[9] Harris ML, Loxton D, Wigginton B, Lucke JC. Recruiting online: lessons from a longitudinal survey of contraception and pregnancy intentions of young Australian women. Am J Epidemiol 2015;181(10):737–46. https://doi.org/10.1093/aje/kwv006.

[10] Sexual Health and Family Planning Australia. Contraception Choices 2013 [cited 2015 14th January]. Available from: < http://www.shfpa.org.au/resources-health-professionals > .

[11] StataCorp.. Stata statistical software: release 13. College Station (TX): StataCorp LP; 2013.

[12] Family Planning New South Wales, Family Planning Queensland, Family Planning Victoria. Contraception: an Australian clinical practice handbook. 3rd ed. Family Planning NSW, Family Planning QLD, Family Planning VIC; 2012.

[13] QSR International Pty Ltd. NVivo qualitative data analysis software. Version 10 ed. QSR International Pty Ltd; 2012.

[14] Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol 2006;3(2):77–101. https://doi.org/10.1191/1478088706qp063oa.

[15] Tavener M, Chojenta C, Loxton D. Generating qualitative data by design: the Australian Longitudinal Study on Women's Health qualitative data collection. Publ Health Res Pract 2016;26(3).

[16] Kitto SC, Chesters J, Grbich C. Quality in qualitative research. Med J Aust 2008;188(4):243–6.

[17] Weisberg E, Bateson D, McGeechan K, Mohapatra L. A three-year comparative study of continuation rates, bleeding patterns and satisfaction in Australian women using a subdermal contraceptive implant or progestogen releasing-intrauterine system. Eur J Contracep Reprod Health Care 2014;19(1):5–14. https://doi.org/10.3109/13625187.2013.853034.

[18] Wigginton B, Harris ML, Loxton D, Lucke JC. A qualitative analysis of women's explanations for changing contraception: the importance of non-contraceptive effects. J Family Plann Reprod Health Care 2016;42(4):1–7. https://doi.org/10.1136/jfprhc-2015-101184.
[19] Higgins JA, Smith NK. The sexual acceptability of contraception: reviewing the literature and building a new concept. J Sex Res 2016;53(4–5):417–56. https://doi.org/10.1080/00224499.2015.1134425.
[20] Bracken J, Graham CA. Young women's attitudes towards, and experiences of, long-acting reversible contraceptives. Eur J Contracep Reprod Health Care 2014;19(4):276–84. https://doi.org/10.3109/13625187.2014.917623.
[21] de Visser RO, Smith AMA, Rissel CE, Richters J, Grulich AE. Sex in Australia: safer sex and condom use among a representative sample of adults. Aust N Z J Publ Health 2003;27(2):223–9.
[22] Manlove J, Welti K, Barry M, Peterson K, Schelar E, Wildsmith E. Relationship characteristics and contraceptive use among young adults. Perspect Sex Reprod Health 2011;43(2):119–28. https://doi.org/10.1363/4311911.
[23] 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 Family Plann Reprod Health Care 2016;43:123–34. https://doi.org/10.1136/jfprhc-2014-101132.
[24] Hoggart L, Newton VL. Young women's experiences of side-effects from contraceptive implants: a challenge to bodily control. Reprod Health Matt 2013;21(41):196–204. https://doi.org/10.1016/S0968-8080(13)41688-9.
[25] Madden T, Secura GM, Nease RF, Politi MC, Peipert JF. The role of contraceptive attributes in women's contraceptive decision making. Am J Obstet Gynecol 2015;213(1):e1–6. https://doi.org/10.1016/j.ajog.2015.01.051.
[26] Gomez AM, Clark JB. The relationship between contraceptive features preferred by young women and interest in IUDs: an exploratory analysis. Perspect Sex Reprod Health 2014;46(3):157–63. https://doi.org/10.1363/46e2014.
[27] Marshall C, Guendelman S, Mauldon J, Nuru-Jeter A. Young women's contraceptive decision making: do preferences for contraceptive attributes align with method choice? Perspect Sex Reprod Health 2016;48(3):119–27. https://doi.org/10.1363/48e10116.
[28] Mazza D, Black K, Taft AJ, Lucke J, McGeechan K, Haas M, et al. Peipert JF. Increasing the uptake of long-acting reversible contraception in general practice: the Australian Contraceptive ChOice pRoject (ACCORd) cluster randomised controlled trial protocol. BMJ Open 2016;6(10). https://doi.org/10.1136/bmjopen-2016-012491.
[29] Stewart M, Bateson D. Choosing non-oral, long-acting reversible contraception. Aust Presc 2016;39(5):153–8. https://doi.org/10.18773/austprescr.2016.057.
[30] Higgins JA, Ryder K, Skarda G, Koepsel E, Bennett EA. The sexual acceptability of intrauterine contraception: a qualitative study of young adult women. Perspect Sex Reprod Health 2015;47(3):115–22. https://doi.org/10.1363/47e4515.
[31] Garcia J, Evans J, Reshaw M. "Is There Anything Else You Would Like to Tell Us" – methodological issues in the use of free-text comments from postal surveys. Qual Quant 2004;38(2):113–25. https://doi.org/10.1023/B:QUQU.0000019394.78970.df.
[32] Rich JL, Chojenta C, Loxton D. Quality, rigour and usefulness of free-text comments collected by a large population based longitudinal study-ALSWH. PLoS ONE 2013;8(7). https://doi.org/10.1371/journal.pone.0068832.