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Contraceptive priorities among women seeking family planning services in Finland in 2017–2019

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ABSTRACT

Objective: To assess how women's reproductive history, contraceptive experience and need of abortion care are associated with priorities for contraception.
Study Design: In this cross-sectional survey study, we gathered information on women's history of births and abortions, previous use and satisfaction with contraceptive methods, and features of contraceptive methods they value most. Women were recruited at public family planning and outpatient abortion clinics in the capital region of Helsinki, Finland.
Results: Of the 1006 women responding, 502 were recruited during visits for abortion care and 504 for contraceptive counseling. Women seeking abortion care more often had a history of abortion than women seeking contraceptive counseling (44% vs 11%), presented with a higher mean number of different contraceptive methods used (69% vs 55% with more than 2 previous methods), and were less often satisfied with the methods used (36% vs 60% satisfied with 2 out of 3 methods), $p < 0.001$ for all. In addition, women seeking abortion care had lower odds of prioritizing effectiveness (aOR 0.3, 95% CI 0.2–0.5), and higher odds of prioritizing lower hormonal levels or non-hormonal alternatives (aOR 2.0, 95% CI 1.3–3.2). There was no difference between the groups regarding priorities of lesser pelvic pain (aOR 0.7, 95% CI 0.5–1.1), regular period (aOR 01.2, 95% CI 0.8–1.9), or the method being easy to use (aOR 1.2, 95% CI 0.8–1.8).
Conclusions: There is a contrast between guidelines emphasizing effectiveness in postabortion contraception, and many women's contraceptive priorities.
Implication statement: Clinicians providing contraceptive counseling must be mindful of each individual's personal contraceptive priorities.

Introduction

Unmet need for contraception is often measured by the rate of unintended pregnancy or induced abortion. Despite availability and access to contraceptive services, this unmet need persists in the developed world [1]. In both the United States and Europe the rates of unintended pregnancy have been declining, but still almost half of all pregnancies are estimated to be unintended [2, 3].

Thus, unmet need for contraception demonstrates more than just lack of access to contraceptive care or methods but might also reflect the ability of the contraceptive service system to respond to individual needs. However, evidence on the possible effects of different contraceptive counseling strategies is limited and mixed [4, 5]. Some strategies are focused on increasing the use of highly effective methods, especially the long-acting reversible contraceptive (LARC) methods [6]. Even though these methods are superior when it comes to contraceptive effectiveness, there is concern that efforts to promote LARC might cause disparities in contraceptive counselling, by specifically aiming to increase LARC use among women with presumed risk factors for unintended pregnancy [7, 8]. This raises questions concerning women's reproductive autonomy and calls for a more women-centered approach in reproductive health care.

Abbreviations: COC, combined oral contraception; EC, emergency contraception; POP, progestin-only pill; LNG-IUS, levonorgestrel-releasing intrauterine system; Cu-IUD, copper intrauterine device.

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Women-centered approaches emphasize that women's experiences and preferences are as important as facts on effectiveness and eligibility in the counseling process [9-11]. Such approaches highlight the need for individualized information to support client autonomy [12]. In the present study, we assessed how women's contraceptive and reproductive experiences are associated with their expectations and preferences for contraceptive methods, by surveying women receiving contraceptive counseling at both public family planning clinics and as part of abortion care.

Material and methods

We surveyed clients recruited from 4 public family planning clinics in the City of Vantaa in the Helsinki capital region, Finland, and from the outpatient clinic for induced abortion care at the Department of Obstetrics and Gynecology, Helsinki University Hospital, Finland. The City of Vantaa, with a population of approximately 225,000, is located in the Helsinki capital region (population 1.2 million), Finland. In 2017, there were altogether over 13,000 appointments at the 4 public clinics in Vantaa, and 25% of women aged 15 to 24 attended the services. The gynecological outpatient clinic of Helsinki University Hospital is the only public clinic providing abortion care in the Helsinki capital region. The clinic provides both medical and surgical abortion, and 99% of women living in the region and seeking abortion care use these services (Professor M Gissler, personal communication, October 27, 2020). All visits to the public family planning clinics are provided free-of-charge and visits to the out-patient clinic are substantially subsidized by law: a noncomplicated medical abortion at Helsinki University Hospital renders a bill of €33 ($37) [13].

Between April 25 and Aug 30, 2017, we distributed surveys at the clinics in Vantaa and from November 15th, 2017 to July 3rd, 2019 at the university clinic. As we had a limited number of tablet computers, surveys were completed by 49% of outpatient abortion clients and 27% of family planning clients in one of 4 languages (Finnish, Swedish, English or Russian). Among those invited to participate, 90% completed surveys. The questionnaire was completed during a regular scheduled visit, with no additional visits required. Figure 1 presents the details of the recruitment process together with participation numbers.

We gathered information on women's demographic characteristics, their previous contraceptive experiences, and characteristics and features they prioritize in an ideal contraceptive method, with a 94-item questionnaire adapted from the Contraceptive CHOICE Project [14]. The survey's branched logic resulted in those who were nulliparous or had less contraceptive experience seeing fewer items.

The survey covered use, satisfaction, and possible adverse effects of the following contraceptive methods: male condom, combined oral contraception (COC), progestin-only pill (POP), contraceptive patch, vaginal ring, contraceptive implant, levonorgestrel-releasing intrauterine system (LNG-IUS), copper intrauterine device (Cu-IUD), rhythm or natural family planning, and emergency contraception (EC). The answer options for use were "using now," "used previously," and "never used," with the 2 first options combined to "ever used" in this analysis. Satisfaction was reported using 4 categories: "very satisfied," "somewhat satisfied," "somewhat unsatisfied," and "very unsatisfied," with the first 2 options combined to "satisfied" in this analysis. In addition, the survey addressed which 3 features or characteristics of contraceptive methods women considered most important. The options were "a regular period," "fewer bleeding days," "lesser pelvic pain," "effective birth control," "easy to use" (e.g., not requiring daily remembering), "lower hormonal levels," "a non-hormone alternative," "affordable," and "no effects on my sex life." The options of lower hormonal levels and a non-hormonal alternative were combined for this analysis.

For all descriptive measures and analyses, the respondents were allocated into 2 groups based on their enrollment site and pregnancy status: seeking contraceptive counseling (i.e., enrolled at family planning clinics in Vantaa while not being pregnant) and seeking abortion care (i.e., enrolled at the gynecological outpatient clinic of the Helsinki University Hospital while seeking abortion care).

Background characteristics of the respondents, as well as variables on contraceptive experiences and priorities, are presented as absolute numbers and proportions in the 2 study groups. Age, number of previously used methods, and satisfaction with previously used methods are presented as categorical variables. The difference in frequencies between the 2 study groups is described by P-values obtained by chi-square test or Wilcoxon rank-sum tests, whichever appropriate. The association between background characteristics and prioritized features of contraceptive methods were analyzed with univariate logistic regression of each background variable towards each of the 3 most frequently reported prioritized features. As the study groups were clinically different, in particular regarding age, additional analyses of the relationship between study group and the prioritized features of contraceptives were analyzed in multivariate logistic regression models with first categorical age, and further history of delivery, history of abortion, history of unplanned pregnancy, previously used contraceptive methods, proportion of methods satisfied with, and ever ceasing a hormonal contraceptive due to side effects as covariates. Clustering of prioritized features were assessed with a frequency matrix.

The study received permission from the ethics committee of the Hospital District of Helsinki and Uusimaa (304/13/03/03/2015 and HUS/1856/2017), from the City of Vantaa (VD/9786/13.00.00/2015), and from the Hospital District of Helsinki and Uusimaa (HUS/42/2017).

Results

Altogether 502 clients seeking abortion care and 504 clients seeking contraceptive counselling completed the electronic survey. All respondents were female. Women seeking contraceptive counseling answered a slightly higher number of questions than women seeking abortion care (78 vs 72 questions). On average, a woman answered 97% of all questions addressed to her.

Women seeking abortion care were older than women seeking contraceptive counseling (median age 27 years, IQR 23–32 vs median age 23 years, IQR 19–29, $p < 0.001$). History of contraceptive use differed significantly between the 2 groups. Women seeking abortion were more likely than those seeking contraceptive counseling to report they had previously used more than 2 contraceptive methods (69% vs 55%, $p < 0.001$). The number of methods used varied from 0 to 8, with 16 women reporting no previous contraceptive use and 2 women reporting 8 different types of contraception used. Table 1 presents the characteristics of the respondents in the 2 study groups.

The most commonly used contraceptive method in the full sample was the male condom, followed by combined oral contraceptives and emergency contraception. Satisfaction with the methods varied by study group. Women seeking abortion care were less often satisfied with the methods they had used, with 181 women (36%) reporting satisfaction with 2 out of 3 methods used, compared to 302 (60%) women seeking contraceptive counseling (Table 1). Figure 2 presents proportion of women reporting use of each method (Fig. 2a), together with the proportion of women reporting satisfaction with the method (Fig. 2b), in the 2 study groups.

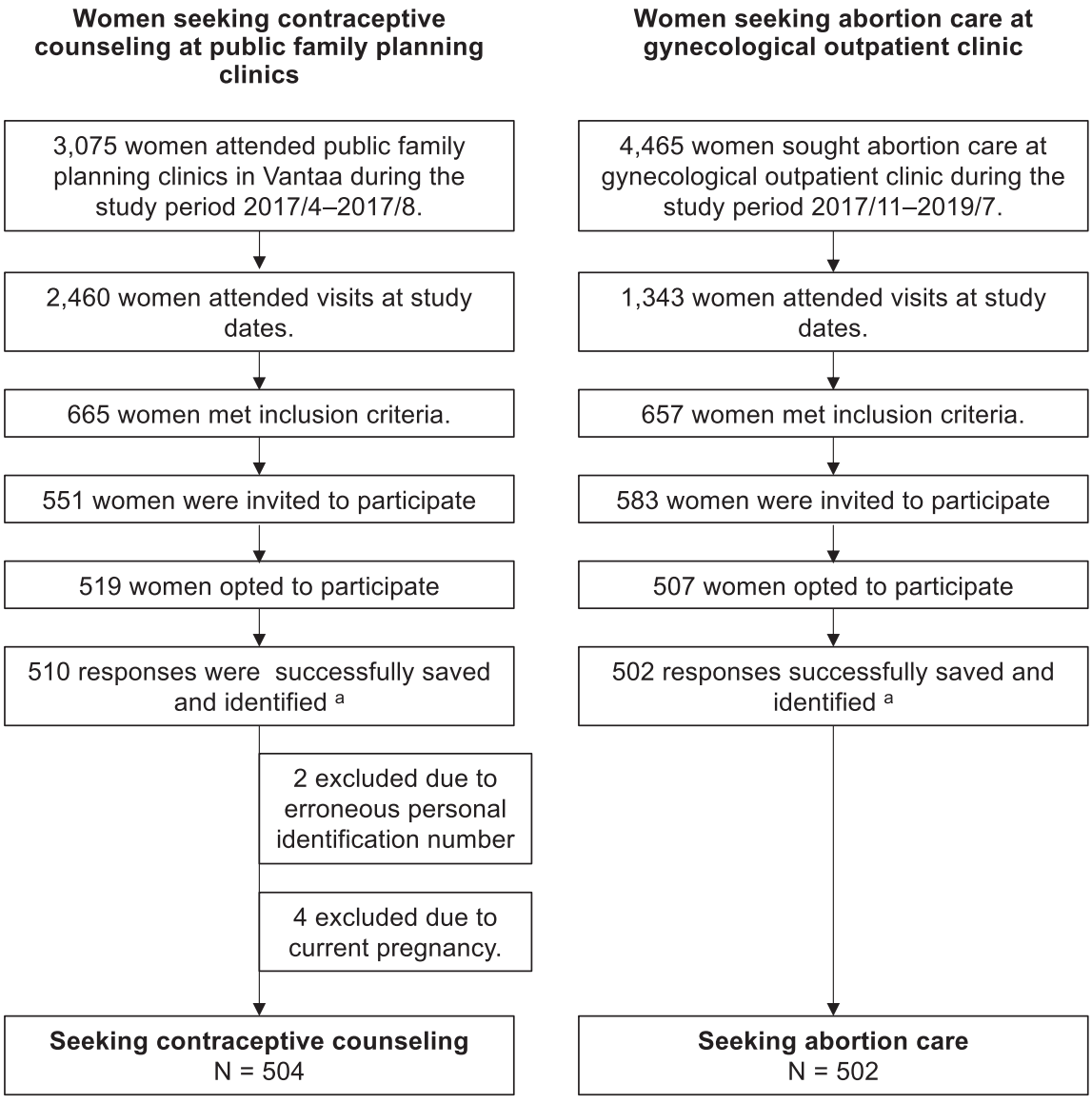

Fig. 1. Flow chart of the recruitment process. Study dates were defined as dates when at least 1 patient was recruited. Inclusion criteria were (a) women speaking one of the 4 languages the questionnaire was available in, (b) the nurse had access to the tablet computer, and (c) the nurses schedule allowed for recruitment. If the participation number linked to a saved response did not match any participation number on a consent forms, the response was excluded from the study.

In both groups, effective birth control was most frequently reported as one of the 3 most important features of a contraceptive: 63% of women seeking abortion care and 80% of women seeking contraceptive counseling chose this alternative ($p < 0.001$). Among women seeking abortion care, the second and third most commonly reported feature were lower hormonal levels or a non-hormonal alternative and that the method should be easy to use, while women seeking contraceptive counseling reported reduction of menstrual pain and obtaining a regular period (Fig. 3).

Table 2 presents the results of univariate logistic regressions on the associations of background factors on prioritized features of contraceptive methods. The odds of prioritizing effective birth control decreased with age and was lower among women seeking abortion care compared to women seeking contraceptive counseling. In addition, women seeking abortion care had higher odds of prioritizing a low-hormone or non-hormonal alternative. These results remained significant also after adjustment (Table 3). The same was true for women with history of birth, abortion, or experience of multiple contraceptive methods. Among women satisfied with less than one third of previously used methods, the odds of prioritizing a method with lower hormonal levels or a non-hormonal alternative was almost 3-fold compared to women satisfied with over two thirds of methods used.

Some clustering of prioritized features could be identified. Among women reporting effectiveness as one of the 3 most important features of a contraceptive method (72% in the total sample), 37% also reported lesser pelvic pain and 32% a regular period as important features. Among women valuing lower hormonal levels or a no-hormone alternative (24% in the total sample), 31% reported easy to use and 30% no effects on their sex life as important features. Table 4 shows the number of women choosing each feature and details the clustering of valued features.

Discussion

We find that women seeking abortion care had used a greater number of different contraceptive methods and were on average less satisfied with all methods, compared to women seeking contraceptive counseling. In addition, the features of contraceptive

Table 1
Characteristics of women seeking abortion care at the outpatient clinic of Helsinki University Hospital and of women seeking contraceptive counseling at the public family planning clinics in Vantaa in Finland in 2017–2019

Characteristic	Seeking abortion care (n = 502)	Seeking contraceptive counseling (n = 504)
Categorical age		
<20	8	31
20–24	26	26
25–29	31	19
30 and over	35	23
History of delivery[a]	37	19
History of abortion[b]	44	11
History of unintended pregnancy[c]	82	15
No. of previously used contraceptive methods		
1–2	31	45
3–4	53	44
5 and over	16	11
Proportion of contraceptive methods satisfied with		
Satisfied with over 2/3 of used methods	36	60
Satisfied with 1/3–2/3 of used methods	45	31
Satisfied with less than 1/3 of used methods	19	6
Ever ceased a contraceptive method due to side effects[d]	57	37

p-values comparing frequencies between the 2 study groups were obtained by chi-square test and were all significant at $p < 0.001$.
[a] Missing values for 24 women seeking contraceptive counseling and 66 women seeking abortion care.
[b] Missing values for 16 women seeking contraceptive counseling and 29 women seeking abortion care.
[c] Missing values for 15 women seeking contraceptive counseling and 32 women seeking abortion care.
[d] Missing values for 15 women seeking contraceptive counseling and 24 women seeking abortion care.

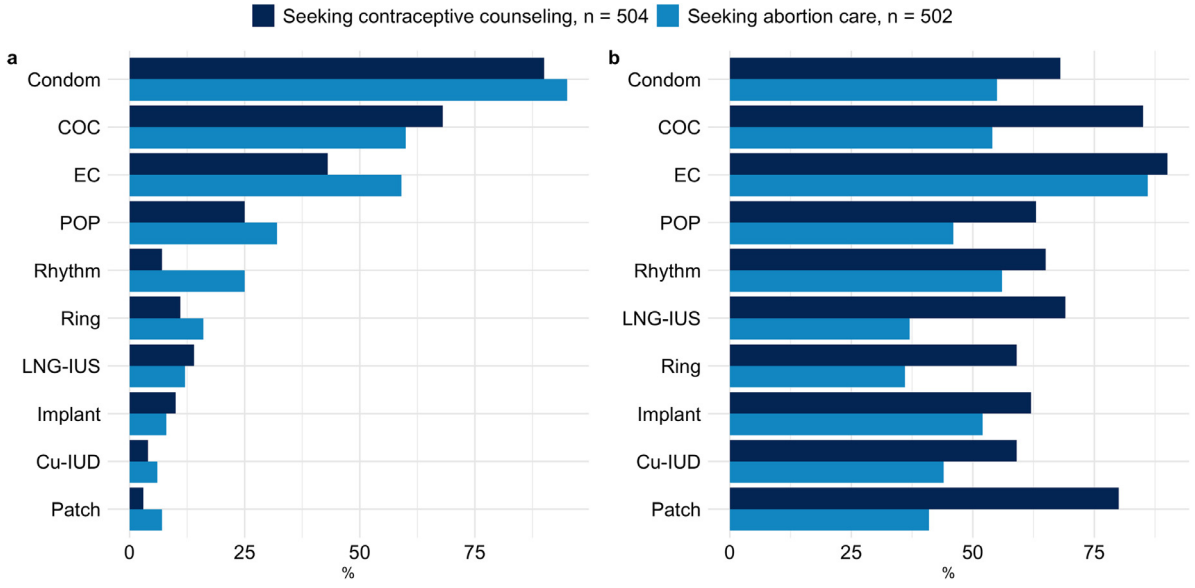

Fig. 2. Proportion of women reporting current or previous use of a contraceptive method (a) and proportion of women satisfied with the method (b) in the 2 study groups.

methods women prioritized differed between the study groups. Specifically, women seeking abortion care had higher odds of reporting lower hormonal levels or non-hormonal methods as important features of contraception, a difference that remained significant after adjustment for both age and the other assessed covariates. Women who had used 3 or more different methods also had higher odds of prioritizing lower hormonal levels or non-hormonal methods.

While the efficacy of LARC methods in post-abortion contraception has repeatedly been demonstrated and is highly recommended [15-19], women seeking abortion care had significantly lower odds of prioritizing efficacy compared to women seeking contraceptive counseling. Women with history of abortion also displayed lower odds of prioritizing effectiveness compared to women without previous abortion. In Finland, it is mandatory to provide contraceptive counseling as part of abortion care [20]. Interestingly, a recent study from the United States showed that over two thirds of women did not want to discuss contraception at time of abortion [21]. These findings support the use of women-centered counseling methods [22] .

Women seeking abortion care were older than women seeking contraceptive counseling, and thus had a longer reproductive history. This may partly explain the reported larger number of previously used methods and more prevalent history of pregnancy. However, women seeking abortion care had also discontinued hormonal contraception significantly more often due to side effects than women seeking contraceptive counseling. These results are in line with previous studies showing that unintended pregnancy is often preceded by switching contraceptive method or discontinuing contraception [23].

In the present study, 80% of women attending family planning clinics and 63% of women seeking abortion care reported effectiveness as one of the most important features of a contraceptive. The number of contraception users reporting effectiveness as an important feature of a contraceptive in the CHOICE project in St Louis (USA) was 84% [14], in a European study of 11 selected countries

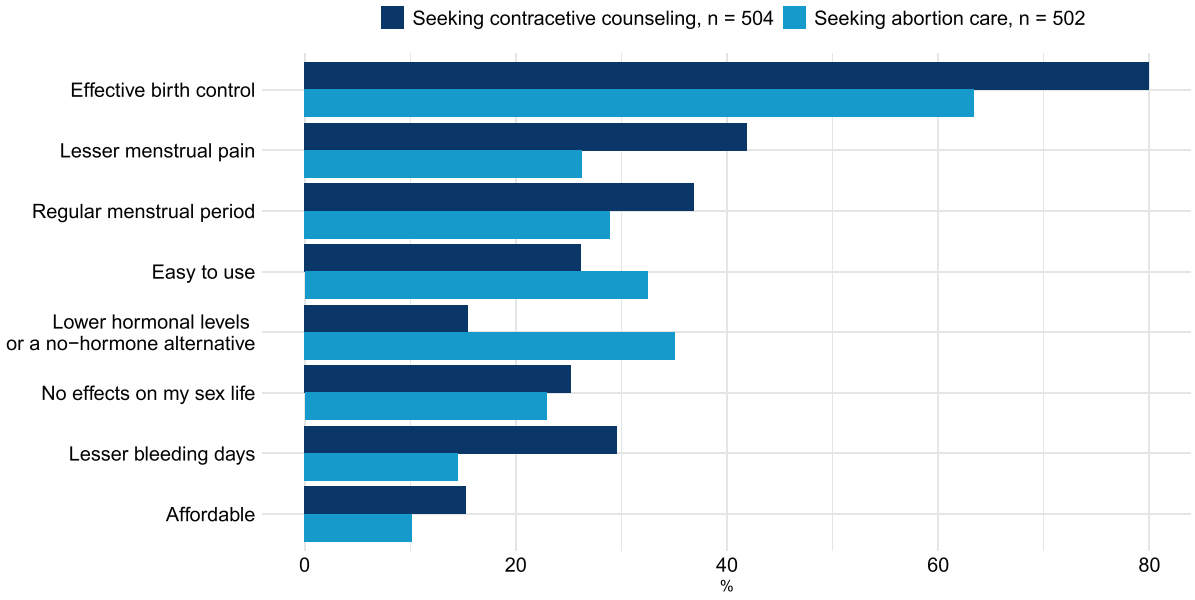

Fig. 3. Features reported as one of the 3 most important feature of a contraceptive method, as percentages in the 2 study groups.

Table 2
Odds Ratios from univariate logistic regression models of characteristics of the respondents on the features of contraceptive methods they report as the 3 most important, in Finland in 2017–2019

Characteristic	Feature of contraceptive method Effective birth control (n = 721) OR (95% CI)	Lesser pelvic pain (n = 343) OR (95% CI)	Regular period (n = 331) OR (95% CI)	Easy to use (n = 295) OR (95% CI)	Lower hormonal levels or a non-hormonal alternative (n = 254) OR (95% CI)
Categorical age					
Under 20	2.2 (1.4–3.3)	2.9 (2–4.3)	2.4 (1.6–3.5)	0.5 (0.3–0.7)	0.2 (0.1–0.3)
20–24	1.5 (1.1–2.2)	1.6 (1.1–2.3)	1.7 (1.2–2.5)	0.7 (0.5–1)	0.6 (0.4–0.9)
25–29	1.5 (1–2.1)	1.4 (1–2)	1.3 (0.9–1.9)	0.7 (0.5–1)	0.7 (0.5–1)
Over 30	ref	ref	ref	ref	ref
History of delivery	0.7 (0.5–0.9)	0.6 (0.4–0.8)	0.6 (0.4–0.8)	1.9 (1.4–2.5)	2 (1.5–2.7)
History of abortion	0.7 (0.5–0.9)	0.7 (0.5–0.9)	0.7 (0.5–0.9)	1.6 (1.2–2.1)	2 (1.5–2.7)
History of unintended pregnancy	0.7 (0.5–1)	0.5 (0.4–0.7)	0.6 (0.4–0.7)	1.7 (1.3–2.3)	3.1 (2.3–4.3)
No. of previously used contraceptive methods					
1–2	ref	ref	ref	ref	Ref
3–4	1.4 (1–1.9)	1 (0.8–1.4)	0.9 (0.7–1.2)	1.7 (1.3–2.3)	2.7 (1.9–3.9)
5 or more	1.1 (0.7–1.7)	0.6 (0.4–0.9)	0.5 (0.3–0.7)	1.8 (1.2–2.8)	6.7 (4.3–10.5)
Proportion of contraceptive methods satisfied with					
Satisfied with over 2/3 of used methods	ref	ref	ref	ref	ref
Satisfied with 1/3–2/3 of used methods	0.9 (0.7–1.3)	0.7 (0.5–0.9)	0.8 (0.6–1.1)	1 (0.8–1.4)	2.5 (1.8–3.5)
Satisfied with less than 1/3 of used methods	0.6 (0.4–0.9)	0.5 (0.3–0.8)	0.7 (0.5–1.1)	0.7 (0.5–1.1)	2.9 (1.9–4.5)
Ever ceased a contraceptive method due to side effects	0.7 (0.5–0.9)	0.7 (0.6–0.9)	0.7 (0.5–0.9)	1.1 (0.8–1.5)	3.3 (2.4–4.5)

CI, Confidence Interval; OR, Odds Ratio.
Those significant at $p < 0.05$ are marked with bold.

90% [24], and in Sweden 64% [25]. The relatively low proportion of women prioritizing effectiveness of their contraceptive method in Finland and Sweden might correlate to the easily accessible and affordable contraception services in these countries. In a setting of relatively low barriers to abortion care, an unintended pregnancy may not necessarily be considered a contraceptive failure; seeking abortion care may be only one reproductive option among others [26, 27].

Prioritizing effectiveness was found to cluster with desiring period regularity and lesser menstrual pain, that is, features strongly associated with hormonal methods. Women younger than 25 years of age valued period regularity and lesser menstrual pain more than women over 30 years of age. However, effectiveness, period regularity, and lesser menstrual pain lost their importance among women reporting previous use of more than 4 different methods of contraception, and among women seeking abortion care. Instead, these women presented higher odds of prioritizing a low-hormone

Table 3
Odds Ratios from univariate and multivariate logistic regression models of study group on the features of contraceptive methods reported as the 3 most important, in Finland in 2017–2019

Characteristic	Feature of contraceptive method Effective birth control (n = 721) OR (95% CI)	Lesser pelvic pain (n = 343) OR (95% CI)	Regular period (n = 331) OR (95% CI)	Easy to use (n = 295) OR (95% CI)	Lower hormonal levels or a non-hormonal alternative (n = 254) OR (95% CI)
Study group					
Seeking contraceptive counseling	ref	ref	ref	ref	ref
Seeking abortion care	0.4 (0.3–0.6)	0.5 (0.4–0.6)	0.7 (0.5–0.9)	1.4 (1.0–1.8)	2.9 (2.2–4.0)
Study group (seeking abortion care) with categorical age as covariate[a]	0.5 (0.3–0.6)	0.6 (0.4–0.8)	0.8 (0.6–1.1)	1.2 (0.9–1.6)	2.4 (1.7–3.2)
Study group (seeking abortion care) with all variables[b] as covariates	0.3 (0.2–0.5)	0.7 (0.5–1.1)	1.2 (0.8–1.9)	1.2 (0.8–1.8)	2.0 (1.3–3.2)

CI, Confidence Interval; OR, Odds Ratio.
Those significant at $p < 0.05$ are marked with bold.
[a] Categorical age was added as covariate in the multivariate model.
[b] Categorical age, history of delivery, history of abortion, history of unplanned pregnancy, number of previously used contraceptive methods, proportion of methods satisfied with, and ever ceasing a hormonal contraceptive due to side effects, were added as covariates in the multivariate model.

Table 4
Clustering of features of contraceptive methods the respondents report as the 3 most important, in Finland in 2017–2019

	Total *n*	Effective birth control *n* (%)	Lesser pelvic pain *n* (%)	Regular period *n* (%)	Easy to use *n* (%)	Lower hormonal levels or a non-hormonal alternative *n* (%)	No effects on my sex life *n* (%)	Fewer bleeding days *n* (%)	Affordable *n* (%)
Effective birth control	721	-	265 (37)	234 (32)	223 (31)	167 (23)	156 (22)	176 (24)	86 (12)
Lesser pelvic pain	343	265 (77)	-	132 (38)	64 (19)	35 (10)	40 (12)	92 (27)	27 (8)
Regular period	331	234 (71)	132 (40)	-	43 (13)	45 (14)	39 (12)	54 (16)	32 (10)
Easy to use	295	223 (76)	64 (22)	43 (15)	-	79 (27)	71 (24)	42 (14)	33 (11)
Lower hormonal levels or a non-hormonal alternative	254	167 (66)	35 (14)	45 (18)	79 (31)	-	77 (30)	24 (9)	15 (6)
No effects on my sex life	242	156 (64)	40 (17)	39 (16)	71 (29)	77 (32)	-	32 (13)	27 (11)
Fewer bleeding days	222	176 (79)	92 (41)	54 (24)	42 (19)	24 (11)	32 (14)	-	22 (10)
Affordable	128	86 (67)	27 (21)	32 (25)	33 (26)	15 (12)	27 (21)	22 (17)	-

or non-hormonal alternative – possibly due to side effects associated with previous contraceptive methods.

This study has several strengths. The questionnaire is based on that used in the Contraceptive CHOICE project and has been found suitable for surveying women seeking contraceptive care. The recruitment process was successful; among all women invited to participate, 90% consented. The compliance of the respondents was also noteworthy, as women on average answered 97% of the questions posed. There are also limitations to consider, however. Previous studies have shown that women overestimate the efficacy of contraceptive methods [28, 29]. Therefore, a reason not to prioritize effectiveness might also emerge from assuming all contraceptives to be equally effective in preventing pregnancy. Another limitation is that not all countries provide free-of-charge contraceptive services, which is likely to affect the generalizability of our results. Conversely, our setting allowed us to study what women prioritize when cost is not a major barrier. Finally, the survey was implemented mainly by nurses during regular shifts. Thus, there was no designated time for study arrangements, and hence information, recruitment and completion of the questionnaire were added to normal work duties. This might have caused an undefined selection in the recruitment process as nurses, for example, would not have time to recruit new participants on busy days. On the other hand, this possible selection would depend on the day's schedule

and not on the characteristics of the women – and would hence not affect the results of the study. Due to slow recruitment at the outpatient clinic, we enrolled a study nurse working only on recruiting women to the study, thus decreasing this risk of recruitment selection.

In summary, women seeking abortion care reported having used a greater number of contraceptive methods, less satisfaction with used methods, and lower odds of prioritizing effectiveness of a contraceptive method than women seeking contraceptive counseling.

Declaration of Competing Interest

Each author declares that he or she has no financial affiliation or involvement with any commercial organization with potential financial interest in the subject or materials discussed in this study.

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