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Original research article

Intrauterine contraception: attitudes, practice, and knowledge among Swedish health care providers☆,☆☆

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Abstract

Objectives: Intrauterine contraception (IUC) is safe and highly effective, but its use remains low. Previous studies have shown that knowledge of IUC among health care providers (HCPs) is poor and that IUC is recommended to a very limited group of women. This study sought to investigate attitudes, practices and knowledge regarding IUC among Swedish HCPs.

Study design: A pretested, national Web survey was emailed to 1157 HCPs who provide contraceptive counseling in Sweden. The collected data were transferred to IBM SPSS Statistics 20 and analyzed using χ^2 test, Fisher's Exact Test, Student's *t* test, and Kendall's tau-b, as appropriate.

Results: A total of 692 individuals (471 midwives and 221 gynecologists) answered the survey, resulting in a response rate of 60%. Younger HCPs and HCPs who performed a large number of IUC insertions considered the method applicable for a broad spectrum of women. Fewer than 30% considered IUC an option for younger women, women with a previous ectopic pregnancy or women with pelvic inflammatory disease. During insertion, 24% of the gynecologists and 15% of the midwives used analgesia in the form of paracetamol or nonsteroidal anti-inflammatory drug, transcutaneous electrical nerve stimulation, hot water bottles or misoprostol for cervical ripening. HCPs at workplaces with guidelines for the insertion procedure were more likely to use analgesia and misoprostol. HCPs who performed a large number of insertions per month reported a greater use of analgesia and misoprostol ($p<.01$).

Conclusion: Swedish gynecologists and midwives do not always adhere to scientific evidence and follow existing guidelines with regard to IUC. Efforts are needed to increase the number of HCPs offering IUC, especially to young and nulliparous women.

Implications: Greater educational efforts are needed to counter reluctance among HCPs toward using IUC, especially in young and nulliparous women.

Keywords: Insertion; Facilitating interventions; Analgesia; Nulliparous

1. Introduction

Intrauterine contraception (IUC) is safe and highly effective, but its use in Sweden is relatively low, especially among young, nulliparous women [1]. Still, the relatively high number of unwanted pregnancies and induced abortion rate [2,3] indicates an unmet need for effective contraception. Previous international studies have shown that health care providers (HCPs) have recommended IUC to a very limited population of women [4–8] and have often exaggerated the side effects of the method [4,5,7].

The prevalence of IUC use in Europe is approximately 12% [9]. The typical woman who uses IUC is 38 years old, married or living with a partner, and has 1.38 children [10]. Despite international guidelines encouraging that national records be kept of contraceptive use [2], no such recordkeeping exists in Sweden. The most recent countrywide investigation was carried out in 1996 and showed the use of IUC to be 3% among women 19 to 24 years old compared to 23% among women ages 35 to 39 [11]. The fact that older women tend to be the ones who use IUC may also be seen in the 2010 sales figures for the levonorgestrel-releasing

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intrauterine system (LNG-IUS): 9 prescriptions per 1000 were written for women 20 to 25 years old compared to 38 per 1000 for women 35 to 39 years old [12]. A Swedish study showed that not only is the use of IUC low among young women, but that nulliparous women used them less frequently than parous women [13].

According to the World Health Organization's medical eligibility criteria for contraceptive use, IUC may be recommended to women regardless of age. Neither prior pelvic inflammatory disease (PID) nor previous ectopic pregnancy precludes the use of IUC [14]. Nevertheless, consistent research findings indicate that only a minority of contraception prescribers considered nulliparous women [4,5], teenagers [5,8] and women with a known history of PID [4,7,8] or ectopic pregnancy [5] to be suitable candidates for IUC. The anticipation of pain and the technical difficulties during IUC insertion are suspected to be contributing factors for prescribers' reluctance to recommend IUC [15]. Analgesia, such as paracetamol and nonsteroidal anti-inflammatory drug (NSAID), transcutaneous electrical nerve stimulation (TENS), paracervical block (PCB) and lidocaine gel/spray are frequently used, despite the lack of scientific evidence for their clinical efficacy [16].

In Sweden, contraceptive counseling and prescribing of contraceptives are mainly performed by two professional groups: gynecologists and midwives. The latter are nurses with an additional 1.5 years of training in sexual and reproductive health. They are responsible for three quarters of all contraceptive prescriptions [17]. Family physicians in Sweden generally do not prescribe contraceptives or insert intrauterine devices (IUDs). The purpose of our study was to investigate the attitudes and knowledge Swedish gynecologists and midwives have regarding IUC and explore their use of prophylactic analgesia and facilitating interventions at IUC insertion.

2. Materials and methods

An online questionnaire was sent to 1157 HCPs in Sweden. Inclusion criteria for study participation were an occupation as a gynecologist or midwife actively involved with contraceptive counseling and provision. Participants were recruited through contact with county councils, youth clinics, midwifery clinics, operations managers for women's clinics, coordinating midwives, the Swedish Midwifery Association, the Swedish Society for Obstetrics and Gynecology and the Association of Swedish Youth Clinics. The study was approved by the local ethics review board at Karolinska Institutet. Prior to the study's inception, the survey instrument was tested twice: first on a group of midwives at the Sexual and Reproductive Health Clinic, Karolinska University Hospital, Stockholm, and then on medical students at Karolinska Institutet.

An email containing the questionnaire and a description of the study was distributed to 1325 midwives and gynecologists in October 2011. The survey period extended over 3 weeks. Two reminders were sent out at weekly intervals to those who had not responded by the end of the first week. The questionnaire comprised 27 questions and had an estimated total response time of 10 min. Except for the last question, which was an open comment field, the survey contained single-option and multi-item questions. Each HCP was asked to estimate the frequency of side effects caused by IUC on a three-point scale representing low, moderate or high.

The first part of the questionnaire sought to identify the participant's demographic characteristics. The next part explored prescribing habits, i.e., which contraceptive methods were most often recommended for different groups of women and to whom the HCP was willing to recommend IUC. Respondents were also asked about the use of analgesia such as paracetamol, NSAIDs, application of local lidocaine gel or PCB, pain relief with TENS and hot water bottles, or cervical ripening with misoprostol.

The collected data were transferred to IBM SPSS Statistics 20 and analyzed by that program. The χ^2 test was used for analysis of nominal variables and comparison between groups. In cases where the sample group was too small, the difference between groups was calculated using Fisher's Exact Test. For numerical tests, such as age and number of insertions per month, Student's t test and Kendall's tau-b were used as appropriate. A p value $<.05$ was considered statistically significant.

3. Results

Of the 1325 emails sent out, 137 were returned as undeliverable, and 41 responding HCPs were excluded because they reported that they were not currently prescribing contraceptives. Of the 1157 HCPs who were included in the study, 692 completed the survey, for a response rate of 60%. A majority of the participants were midwives between 51 and 60 years old (Table 1). The gynecologists were mostly less than 40 years old. The HCPs said that 92% of them performed IUC insertions; 96% of the gynecologists reported performing them; and 90% of the midwives also reported that they did so, which represented p=.01. Of the HCPs, 96% believed that their patients using IUC were satisfied with the method. Our data showed that women usually volunteered their preferred contraceptive method, except for IUDs, which were more often suggested by an HCP.

3.1. Recommended contraceptives in general and for specific patient scenarios

HCPs were presented with nine redundant patient scenarios and asked whether they considered IUC appropriate in each case. Only a minority of the participants said that women below age 17, those women with prior PID or women who had had an ectopic pregnancy were appropriate