

ORIGINAL ARTICLE

Practices and perceptions on intrauterine contraception among Latvian obstetrician–gynecologists

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Abstract

Background. To investigate the professional activity and perceptions of intrauterine contraception among Latvian obstetrician–gynecologists. **Methods.** A questionnaire was completed by 122 Latvian obstetrician–gynecologists attending an annual meeting. Statistical analysis was done with the Epi-Info 2002 statistical package. **Results.** Every day contraceptive consultancy was done by 91.8% of physicians and 98.4% reported ever having inserted intrauterine contraception. The majority of doctors reported careful selection of intrauterine contraception candidates, including screening for sexually transmitted infections before insertion. Intrauterine contraception insertion was definitely excluded in women without a stable monogamous relationship only by 9.8%. A causal relationship between intrauterine contraception and pelvic inflammatory disease was believed by 52.5%. Many doctors sometimes prescribed prophylactic antibiotics before or immediately after intrauterine contraception insertion. However, antibiotics were never prescribed before intrauterine contraception insertion by 50.8%. Younger doctors had significantly more often themselves used combined oral contraceptives than had older doctors, whereas older doctors more often had been intrauterine contraception users. Of current and former intrauterine contraception users, 93.4% were satisfied with this contraceptive method. **Conclusions.** Latvian obstetrician–gynecologists have wide experience in contraception counseling of intrauterine contraception, but some gaps in the theoretical knowledge of doctors about intrauterine contraception were identified. We could not find any significant differences in attitudes to and personal experience with contraceptive methods between older and younger generations, nor were there any differences between genders of obstetrician–gynecologists.

Key words: Gynecologist, contraception, intrauterine device, practice, knowledge

Abbreviations: IUD: intrauterine device, COC: combined oral contraceptive, POP: progestogen-only contraception, STI: sexually transmitted infection, PID: pelvic inflammatory disease, Cu-IUD: copper intrauterine device, Au-IUD: gold intrauterine device, LNG-IUD: levonorgestrel intrauterine device, EC: emergency contraception, PI: pearl index

The intrauterine contraceptive device (IUD) has many advantages in terms of effectiveness, ease of use, low cost, duration of usage, and reversibility (1,2). The use of IUDs varies between the regions of the world, even between the countries in the region or within the country itself (3,4). Those differences are assumed to depend on different perceptions of disadvantages or experience of clinical complications among both users and method providers. The knowledge about and perceptions towards IUDs

among doctors probably greatly influences the use of the method (5–13,18).

According to a survey in 1997, 20.3% of women aged 15–45 in Latvia use IUD, making IUD one of the most common contraceptive methods used in Latvia since the 1970s (14). Apart from gold-containing and levonorgestrel-releasing devices, which have become available during recent years, copper-releasing IUDs are dominating on the market in Latvia and inert IUDs are no longer available.

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Family planning and contraceptive services in Latvia are mainly provided by obstetrician–gynecologists and, thus, those doctors have long experience with IUDs. However, little is known about counseling and clinical practices on IUD use among those doctors, or about their clinical or personal experience of intrauterine contraception.

In order to investigate the professional activity and explore the perceptions, beliefs, and practices among obstetrician–gynecologists in Latvia on contraceptive methods in general and on IUDs in particular, this study was carried out.

Material and methods

Study population

An anonymous and structured questionnaire was distributed among 231 specialists during the annual meeting of the Latvian Association of Obstetricians and Gynecologists in September 2003, at which the attendance was known. During that time, there were 484 specialists in obstetrics and gynecology registered and certified for legal practice in Latvia.

Study methods

The questionnaire contained 28 questions about personal information on age, sex, working place, years of practice, daily work activities regarding contraception, detailed information regarding professional experience, and perceptions and attitudes towards IUD in different clinical situations. Some questions covered theoretical knowledge about efficacy and main mechanism of contraceptive action of some contraceptive methods, including IUD. The final questions related to personal experience with contraceptive methods and personal attitudes to IUDs from a user's and user's partner's point of view.

Statistical methods

All 122 returned questionnaires were included for analysis. Statistical analysis was done with the Epi-Info 2002 statistical package. Most of the questions had categorical answers; therefore *chi-square* test was used for analysis of comparison groups according to gender, age, and practice years, and *p*-value <0.05 was considered significant.

Ethics

The Ethical Committee of the Ministry of Welfare of Latvia approved the study protocol.

Results

Demographic characteristics

The questionnaire was completed and returned by 122 doctors, resulting in a response rate of 52%, representing nearly 25% of all obstetrician–gynecologists in Latvia. The sample included 88.5% (108) female and 11.5% (14) male doctors, closely corresponding to the total female/male ratio among obstetrician–gynecologists in Latvia, which is 88%/12%. The mean age of the participants was 44.9 ± 11.4 (females 44.8 ± 11.3 ; males 45.5 ± 13.2). The age range and mean age corresponded to the actual age distribution of the whole population of obstetrician–gynecologists (Table I). The mean work experience in the sample was 18.8 ± 10.99 years. The mean work years did not differ between genders (female 18.9 ± 10.8 years; male 18.5 ± 12.7 years). For further analysis we divided the study sample according to gender, age below and above 45 years, and according to the number of practice years below and above 15 years.

Daily work activities

Nearly every day consultancy regarding contraception was reported by 91.8% of the doctors whereas 8.2% of the respondents reported that they seldom consulted on contraception. There was no difference between physicians with regard to age or duration of practice. However, female doctors more often consulted nearly every day compared to male doctors, 94.4% versus 71.4% ($p=0.016$). There were four options for reporting the number of patients consulted per month in average: 0–5, 6–25, 26–49, and 50 or more patients. In the whole study group the most frequent answer, given by 52.5%, was 6–25 patients per month. No differences were found between groups. Contraceptive methods that had been recommended during the preceding month are shown in Table II. No differences were found in

Table I. Age and gender distribution of obstetrician–gynecologists practicing in Latvia.

| Parameter | Study group (<i>n</i> = 122) | Whole population (<i>n</i> = 484) |
|-------------|----------------------------------|---------------------------------------|
| Females | 88.5% | 88% |
| Males | 11.5% | 12% |
| Age range | | |
| 25–34 years | 21% | 12% |
| 35–44 years | 31% | 38% |
| 45–54 years | 27% | 23% |
| 55–64 years | 16% | 18% |
| >65 years | 5% | 9% |
| Average age | 44.9 ± 11.4 | 47.5 ± 11.7 |

Table II. Recommended contraceptive method during the preceding month.

| Prescriptions | COC (%) | Cu-IUD (%) | EC (%) | Spermicide (%) | POP (%) | LNG-IUD (%) | Injectable (%) | Emergency IUD (%) |
|---------------|---------|------------|--------|----------------|---------|-------------|----------------|-------------------|
| None | 4.1 | 10.7 | 27.9 | 23.8 | 59 | 46.7 | 76.2 | 95.1 |
| 1 | 4.1 | 17.2 | 19.7 | 8.2 | 13.9 | 29.5 | 12.3 | 4.1 |
| 2–5 | 25.4 | 56.5 | 39.3 | 32 | 18 | 22.1 | 10.7 | 0.8 |
| 6–10 | 23 | 12.3 | 8.2 | 18 | 3.3 | 2 | 0 | 0 |
| ≥11 | 43.4 | 3.3 | 4.9 | 18 | 5.7 | 0 | 0.8 | 0 |

relation to age and work experience, but male doctors much less often prescribed combined oral contraceptive pills (COCs) compared to female doctors, 28.6% versus 0.9% ($p=0.0005$).

Practice of IUD insertion

The vast majority, 98.4%, of the respondents reported that they had ever inserted IUD during their practice years. Most of them (74.6%) inserted 1–5 IUDs per month, 6–10 insertions were done by 5.7%, and 11 or more insertions were reported by 2.5% of the respondents. No differences were found with regard to age, gender, or work experience. According to 82% of the respondents, the best time for IUD insertion was during the menstrual period. Menstrual period insertion was preferred more often by female than by male doctors, 85.2% versus 57.1% ($p=0.016$). Few doctors routinely prescribed antibiotics immediately before or after IUD insertion, whereas many did so sometimes (Figure 1). However, antibiotics were never prescribed before fitting an IUD by 50.8%, and 36.9% of the respondents never prescribed antibiotics immediately after insertion, with no difference between groups with regard to age, gender, or work experience (Figure 1). When asked how a sexually transmitted infection (STI) was excluded before IUD insertion, 90.2% took a

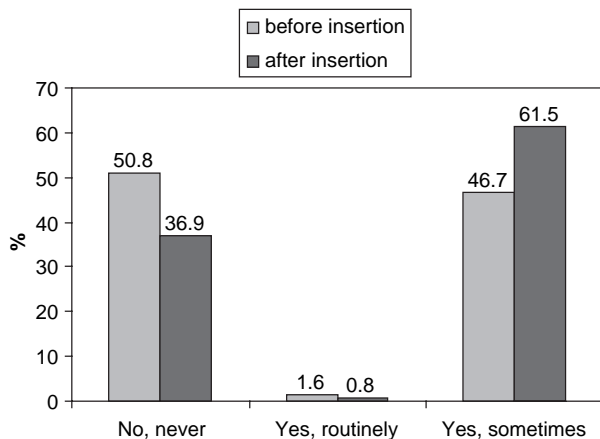


Figure 1. Use of prophylactic antibiotics before or immediately after IUD insertion.

Gram-stained vaginal/cervical specimen and 58.2% took a careful history. Special microbiological methods for the detection of *Chlamydia trachomatis* and/or *Neisseria gonorrhoea* were used by 46.7%. No difference was found according to age, practice years, and gender.

Choosing the potential IUD-user

Never fitting an IUD in a nulliparous woman was reported by 30.3% and never fitting an IUD during lactational amenorrhea was reported by 29.5% of respondents. Significantly more doctors with shorter practice years (≤ 15) reported that they did not insert IUDs in nulliparous women, 44.8%, as compared with those with longer practice years, 22.8% ($p=0.008$). Male doctors and older (>45) physicians were significantly less likely to insert an IUD in a woman with lactational amenorrhea ($p=0.028$; $p=0.019$). IUD insertion for emergency contraception (EC) had never been done by 57% of the respondents, with no difference between groups. A potential IUD candidate, who was not in a stable relationship with one partner was definitely excluded by 9.8% of the respondents, whereas 59.8% of the doctors who would fit an IUD in such a case would fully inform about the risk of STI before insertion. Female doctors were less likely than male doctors to fit an IUD in a parous woman who was not in a stable relationship with one partner, 2.8% versus 42.9% ($p=0.015$). Among the respondents, 32% had never inserted an IUD in a woman with a previous history of an ectopic pregnancy and 30.3% had never inserted an IUD in a woman with a previous history of pelvic inflammatory disease (PID). However, most respondents who were positive to IUD insertion in those two clinical situations took into account the woman's parity and whether the ectopic pregnancy and/or PID episode had occurred before the last intrauterine pregnancy. The only difference between groups was that older doctors reported insertions of IUD in a parous woman with an ectopic pregnancy history more often than did younger doctors, 38.6% versus 18.6% ($p=0.023$).

Observed clinical situations regarding to IUD use

When asked about causes for removal of an IUD in daily practice, the doctors graded the clinical situations as 'very often', 'often', 'sometimes', 'seldom', and 'never'. Abdominal pain, dysmenorrhea, prolonged menstrual periods, intermenstrual bleeding, increased discharge, and partner's complaint of perceptible IUD threads were mostly graded as 'never', 'seldom', or 'sometimes' as reasons for removal, with no observed difference between groups. Prolonged menstrual periods as a reason for IUD removal was significantly more often quoted by less experienced doctors, 25% versus 11.4% ($p=0.031$). Menorrhagia as the reason for removal was graded as 'often' by 18.9% and PID as 'very often' by 19.7% and often by 17.2%. Experience of postinsertion (within one month) PID was reported by 4.9% as 'often', 65.6% as 'seldom' and 27% had never observed postinsertion PID during their practice. When asked about the causal relationship between IUD and PID, 52.5% responded positively whereas 32.8% of the gynecologists did not believe that IUD caused PID and 13.9% answered that they did not know. There were no differences with regard to age, practice years, and gender.

Knowledge about efficacy and the main contraceptive mechanisms

The majority of doctors (93.4%) considered that the main mechanism of action of COCs was inhibition of ovulation, and for copper intrauterine device (Cu-IUD) the dominant answer, given by 83.6% of respondents, was inhibition of implantation. Very variable answers were given to the question related to the main mechanism of action of the levonorgestrel-releasing IUD (LNG-IUD) and EC. With regard to efficacy, expressed as Pearl Index (PI), of various contraceptive methods, 13.9–26.2% did not answer at all. However, the majority of specialists quoted correctly the lowest PI for COC, injectables, LNG-IUD, and sterilization and the highest PI for spermicides and the calendar method. There were no differences between female and male doctors, but older and more experienced doctors more often did not answer the questions regarding PI of injectables, Cu-IUD, LNG-IUD, sterilization, condom, and spermicides ($p < 0.05$).

Respondents' own experience with contraception (Table III)

Personal experience of contraception was reported by 90.2% of the respondents. COCs had been used

Table III. Personal experience of the listed contraceptive methods.

| | Ever used (%) | Current use (%) |
|-------------------------|---------------|-----------------|
| COC | 36.1 | 12.3 |
| POP | 5.7 | 2.5 |
| Injectable | 2.5 | 0 |
| Emergency contraception | 23.8 | 0 |
| Cu-IUD | 37.7 | 9.9 |
| LNG-IUD | 0 | 4.1 |
| Au-IUD | 0 | 2.4 |
| Condom | 41.8 | 11.4 |
| Spermicide | 25.4 | 8.2 |
| Calendar method | 32.8 | 8.2 |
| Sterilized | 0 | 0.8 |

significantly more often by younger physicians and female doctors than by male doctors' partners ($p=0.009$; $p=0.028$). With regard to EC, condom, and spermicides, younger doctors reported having ever used them significantly more often than older doctors ($p=0.0002$; $p=0.027$; $p=0.003$). More experienced doctors reported having ever used a Cu-IUD significantly more often ($p=0.025$). Current use of COCs, condom, and spermicides was statistically more often reported by younger ($p=0.002$; $p=0.027$; $p=0.003$) and less experienced doctors ($p=0.003$; $p=0.008$; $p=0.013$). Current use of Cu-IUD use was significantly more often reported by male doctors' partners ($p=0.035$). Among current and former IUD users, 93.4% reported that they were satisfied with the IUD as a contraceptive method. There were no differences with regard to age, practice years or, gender.

Discussion

Attitudes and perceptions among professionals towards various contraceptive methods are important for how those methods are promoted in a society as reported in studies among specialists in the USA, England, Australia, Finland, Canada, the Netherlands, Czech, Slovakia, and Russia regarding IUD use (5–13). These countries have very different traditions in family planning, including attitudes among users and providers of contraceptive methods, based not only on theoretical concepts, but also on personal and professional experience.

The majority of specialists in obstetrics and gynecology of Latvia were active attendants of the annual meeting. The response rate of 52% of the distributed questionnaire was therefore lower than expected and we were unable to account for those who did not respond. Although the questionnaire was anonymous and the purpose was carefully

explained, it could not be excluded that some doctors feared that their knowledge was being examined. However, the response rate in the current study did not differ substantially from that of similar studies in other countries, using postal surveys, reporting response rates between 35% and 75% (5,6,8). The number of completed questionnaires represented 25% of all practicing obstetrician–gynecologists in Latvia and the responding doctors corresponded well demographically to the whole population of Latvian obstetrician–gynecologists, indicating that the study participants were representative of Latvian obstetrician–gynecologists. It cannot, however, be entirely excluded that those not responding worked less extensively with contraceptive counseling.

The professional activity of doctors regarding contraceptive counseling and prescription in general was high and it could be assumed that this high activity has contributed to the decreasing numbers/rates of abortions recorded during the last decade. According to official data, there were 19,964 induced abortions in 1998 and in 14,685 in 2002. In 1998, there were 1,078 abortions/1,000 live births, and in 2002 the corresponding ratio was 734. The insertion rate of IUDs per month by Latvian obstetrician–gynecologists appears to be similar to that in Finland, a country where IUDs are widely accepted (8). In contrast to the situation in the USA, Canada, and the UK, there has been no history of litigation in relation to IUD use in Latvia, which could explain the high acceptance and popularity of the method (5,9,15,16). In Latvia, there is no health insurance covering expenses for contraceptives for any social group of society. One month's supply of COCs costs nearly the same as a Cu-IUD, which lasts for around five years. It cannot be excluded that the low price of an IUD contributes to the high acceptance of the method. On the other hand, whereas the IUD has been available since the 1960s, COCs have reached a similar degree of popularity in only 10 years on the market, despite the higher cost.

Although widely accepted as a contraceptive method for more than 30 years in Latvia, the IUD is rarely used for EC, despite its well established efficacy when used for this clinical situation (1,17). A similar low acceptance has been reported from surveys from other countries such as the UK and Turkey (11,18).

The negative opinion expressed in the survey on IUD use in nulliparous women, in women with postpartum amenorrhea, and in women with a history of ectopic pregnancy could be explained by local recommendations in the past. The more recent

WHO guidelines were translated into Latvian and used for the development and publication of new national guidelines for contraceptive use in 2000. According to the new guidelines, those clinical situations are no longer considered contraindications for IUD use. However, compared with data from surveys from the UK, Australia, the Netherlands, and Finland, where around 80% of practitioners reported a negative opinion to fit an IUD in a nulliparous woman, Latvian gynecologists appear to have a more accepting attitude (6–8,10).

The majority of Latvian obstetrician–gynecologists agree to insert an IUD in a woman who is not in a stable monogamous relationship. This apparent violation of current recommendations is compensated by active screening for STI, active information about the STI risk, and a high degree of use of antibiotics around the insertion procedure, even when not demanded by clinical findings. There is no scientific evidence for routine use of antibiotics, nor is this a recommendation in current guidelines. More than half of the doctors believed that IUD *per se* could be a cause for PID. Although literature data (1,2,19,20) show very low risk for upper genital tract infection in IUD users, surveys in countries such as USA, Finland, Czech, Slovakia, and Russia reported a similar high proportion of doctors who believed that IUDs cause PID (5,8,12,13).

The majority of more experienced and older doctors did not respond at all to questions relating to efficacy and contraceptive mechanism of action of some contraceptive methods and it could only be assumed that the reason was lack of knowledge. Only one out of five gave a correct answer that the main contraceptive mechanism of action of an IUD is to prevent successful fertilization. This lack of theoretical knowledge could be explained by previous training curricula and only slowly increasing access to modern literature.

The difference in personal contraceptive experience between younger and older doctors reflects the changes of contraceptive practices in Latvia in general that have taken place during recent years. Twenty and more years ago, more modern contraceptive methods, such as COC, EC, and spermicides were not available at all and were only introduced during the last decade, whereas the IUD has been available since the 1960s. The reported contraceptive method use among doctors corresponds well to findings in a national survey in 1997 (14), confirming that doctors do not differ in this respect from the rest of society. A similar conclusion was made in a study in the USA when the contraceptive practices of female physicians were compared to those of the

general population, and no difference in use of various contraceptive methods was found (21).

In conclusion, Latvian obstetrician–gynecologists participate actively in contraceptive counseling and are very experienced with regard to IUD use. Their attitudes and perceptions towards IUD are generally positive and their clinical considerations are in good agreement with that of doctors in other countries, possibly with a lower use of IUD for EC. Antibiotics are widely used around IUD insertion, possibly driven by a liberal attitude towards IUD use in women with a potential risk of STI, although there is no evidence for such a habit (1,19). The study could identify some gaps in the theoretical knowledge about the IUD and other methods and highlights a need to further increase the availability of the most recent evidence-based knowledge about contraceptive methods to Latvian obstetrician–gynecologists.

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