

Contraception and unplanned pregnancies

Akademisk avhandling

Som för avläggande av medicine doktorsexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentligens försvaras i Järneken, Östra sjukhuset den 31 maj kl. 9.00

av Helena Hognert

Fakultetsopponent:

Professor Viveca Odland

Uppsala Universitet

Avhandlingen baseras på följande delarbeten

- I. Lindh I, Skjeldestad FE, Gemzell-Danielsson K, Heikinheimo O, Hognert H, Milsom I, Lidegaard Ø. **Contraceptive use in the Nordic countries.** Acta Obstet Gynecol Scand. 2017 Jan;96(1):19-28.
- II. Hognert H, Skjeldestad FE, Gemzell-Danielsson K, Heikinheimo O, Milsom I, Lidegaard Ø, Lindh I. **High birth rates despite easy access to contraception and abortion: a cross-sectional study.** Acta Obstet Gynecol Scand. 2017 Dec;96(12):1414-1422.
- III. Hognert H, Skjeldestad FE, Gemzell-Danielsson K, Heikinheimo O, Milsom I, Lidegaard Ø, Lindh I. **Reduction in teenage pregnancies – a cross-sectional multinational study.** (Submitted 2018).
- IV. Lindh I, Hognert H, Milsom I. **The changing pattern of contraceptive use and pregnancies in four generations of young women.** Acta Obstet Gynecol Scand. 2016 Nov;95(11):1264-1272.
- V. Hognert H, Kopp Kallner H, Cameron S, Nyrelli C, Jawad I, Heller R, Aronsson A, Lindh I, Benson L, Gemzell-Danielsson K. **Immediate versus delayed insertion of an etonogestrel releasing implant at medical abortion –a randomized controlled equivalence trial.** Hum Reprod. 2016 Nov;31(11):2484-2490.

**SAHLGRENKA AKADEMIN
INSTITUTIONEN FÖR KLINISKA VETENSKAPER**



Contraception and unplanned pregnancies

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Abstract

Aims: The overall aim of this thesis was to describe the relationship between contraceptive use, abortion, birth and fertility rates among women in different age groups in Sweden and the other Nordic countries.

Material and methods: Data on contraception, fertility, birth, and abortion from 1975-2015 was collected from national databases in the five Nordic countries Denmark, Finland, Iceland, Norway and Sweden (Paper I-III). In Paper IV data on reproductive health and socio-economic status (SES) was collected mainly from questionnaires sent to four cohorts of 19-year-old women resident in Gothenburg between 1981 and 2011. Paper V was a multicentre randomised controlled equivalence study where the impact of immediate versus delayed insertion of an etonogestrel releasing contraceptive implant on complete abortion rates after a medical abortion was evaluated.

Results: The user rates of hormonal contraceptives and a copper intrauterine device among all women aged 15-49 years in the Nordic countries varied between 31% and 44%. The highest use was in Denmark and the lowest in Iceland. Combined hormonal contraceptives (CHC) were the most common methods. A small increase of long-acting reversible contraception (LARC) was seen. The user rates of hormonal contraceptives among 18-19 years old teenagers varied between 54% and 63%. CHC were the most common methods, but LARC increased more than in the group of women aged 15-49 years. The overall abortion rates in the Nordic countries fell during the study period. The average fertility and birth rates in the Nordic countries remained stable. Teenage birth and abortion rates declined continuously 1975-2015. There was no clear correlation between higher overall hormonal contraception prevalence and lower abortion rate. Instead other factors have to be considered, such as differences in the proportions of different types of hormonal contraceptives and prevalence in specific age groups. Lower contraceptive use in low SES areas compared to middle and high SES areas was detected in the most recent assessment of 19 years-old women. Equivalence was established for the two insertion modes of a contraceptive implant.

Conclusions: On a global scale the Nordic countries have a high prevalence of contraceptive use, low abortions rates and a stable fertility rate, except for teenagers where a steady decline in both births and abortions was found. An association between low SES and low contraceptive use among 19-year-olds in the most recent assessment was found which might imply widening inequalities. A contraceptive implant can be inserted on the same day as administration of mifepristone for early medical abortion without hampering the abortion. It has the potential to increase the number of women who can receive the most effective methods of contraception at the time of abortion.

Keywords: contraception, abortion, births, socioeconomic status, postabortion contraception

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