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Socio-demographic factors, infertility experiences and infertility treatments in Finland

Background

It has been expected that involuntary infertility will increase in the future with the increasing age of women at first birth. In addition, other factors (reproductive tract infections, life style behaviours such as smoking and obesity, deteriorating semen quality (Baird & Strassmann 2000)) are believed to contribute to that ever more couples / women face difficulties in getting pregnant and having all the wanted children. Today, assisted reproductive technologies have gradually become a widely used method of treatment when women or couples face infertility problems. In Finland, the annual number of initiated IVF/ICSI/FET cycles has varied between 7000-8000 cycles. Treatment rate, or the number of initiated cycles per 1000 women aged 15-49-years was 6.6 in 2005, which is among the highest in Europe. The proportion of IVF-children of all live births has varied from 2.5 to 3 percent during 2000s (STAKES 2007).

However, data on infertility experiences, or difficulties to conceive is scarce and often not very suitable for international, or across-time comparisons. In addition, although medical treatment for infertility has become increasingly available, not much is known of factors related to willingness to seek help, or to decision to start medical treatment. Despite of increasing availability of ART, not all women or couples seek help. Previous studies have pointed to socioeconomic differences between IVF-mothers (Klemetti 2006; Malin 2006), or women receiving hormonal treatment (Klemetti 2006), and other mothers, as women from the highest socio-economic groups are overrepresented among ART-mothers. However, we know relatively little about the relationship of socio-demographic factors and prevalence of infertility, or their relation to willingness to seek help or infertility treatment. According to Lunenfeld and van Steirteghem (2004) barriers to infertility treatment can be classified into three categories: accessibility, economical barriers and cultural/social factors. While accessibility may have lost its significance in western countries with the increasing number of both private and public clinics offering infertility treatments, economic costs and cultural factors may still play a role.

In this study we aim to examine socio-demographic determinants of prevalence of infertility experiences (subfertility), willingness to seek medical care for infertility, and relationship of socio-demographic factors to decisions to start infertility treatment.

Data

Data for this study comes from different sources. We first describe trends in lifetime infertility experiences by using previous literature as well as data from a recent survey. Next, we use FINSEX-survey conducted in 2007 (Simple random sample among Finnish men and women aged 18-74 yrs, N(20-54-year-old women) 802) to examine socio-demographic factors and infertility experiences as well as willingness to seek help. Infertility experience, or subfertility, was measured in surveys as lifetime infertility by asking the respondents to indicate whether they had ever experienced a delay in conception lasting for more than 12 months.

Willingness to seek help was asked if the respondent had ever sought medical care or infertility treatment.

Aggregate IVF-statistics are used to describe the development of infertility treatments in Finland.

Finally, we use data from a survey conducted among patients at one of the private clinics in Finland to look more thoroughly at factors related to decision to seek infertility treatment. Data was collected among heterosexual couples who visited at Väestöliitto's infertility clinic during September 2006-December 2007 (N=currently 200, we expect N=300 by the end of this year). We examine the relationship of socio-demographic factors to how long the couple has tried to achieve a pregnancy and to barriers in seeking treatment (costs-social/cultural-couple relationship).

Method

We apply logistic regression to examine the relationship of socio-demographic factors to prevalence of infertility experiences in 2007 and to willingness seek medical care and treatment. The relationship of socio-demographic factors to barriers and decision to seek infertility treatment are also examined by using logistic regression analysis. IVF-statistics and previous studies are used for descriptive purposes.

Results

We find that the data from three different surveys provides some support for the hypothesis that lifetime infertility experiences have increased during last two decades. In 1989, 14 percent of women (aged 22-51) had experienced difficulties in conceiving, in 2000 and 20007 the percentages had risen to 18 and 20 (women aged 20-54 yrs). Prevalence of subfertility varied markedly little between educational groups. Socio-economic differences seemed to disappear, when the age of the woman is controlled for. Primary infertility as a reason for childlessness at the end of reproductive period is still rare. About 3 percent of women aged 45-54 years (cohort 1953-1962) were childless due to inability to conceive.

While the difficulties in achieving a pregnancy may have become more common, infertility treatments have increasingly become one solution for those who suffer from infertility. The number of infertility treatments (IVF/ICSI/FET) in Finland increased steadily until 1997, and have since then stabilized. In 2006, number of initiated IVF/ICSI/FET cycles was almost four times higher than in 1992. The proportion of children born via IVF/ICSI/FET has varied around 2.5-3 percent of all children during 2000s. In 2007, information on inseminations was collected for the first time. This increased the number of treatments by almost a half, and the proportion of ART-babies to a little over 3 percent.

Both 2000 and 2007 surveys show that there is considerable willingness to seek help when woman/couple faces difficulties to achieve pregnancy. More than a half of women aged 30-54 years having experienced subfertility had sought help (medical care) or treatment for infertility. However, 2007 data shows that there are differences between educational groups in how active women had been. Particularly among the younger age groups, women with a higher education had more actively sought help or treatment for infertility. Among socio-economic groups, the differences were less clear and not statistically significant, although pointed to the same direction (women from higher socio-economic groups seeking help more actively). Average monthly income failed also to have a statistically significant impact on seeking help, and the proportion was clearly higher only among those who belonged into the highest income group. Although it was not possible to examine the impact of other factors than socio-economic indicators to the help seeking, the fact that only education had a significant impact (and not income, for instance) seems to point that other factors besides income may have an impact. In other studies it has been found that, for example, persons with a higher education are more actively seeking any kind of medical care.

Preliminary analysis with the data of the patients from the private clinic shows that the economic costs do not affect the decision to start treatment as much as expected, nor are there marked differences between patients from different socio-economic groups. However, as the data comes from a private clinic, where the patients have to pay relatively large share of the costs themselves, economic considerations are made already when the couple decides whether to seek treatment either from a public clinic, or from a private clinic. We expect to find more differences between socio-economic groups when examining more thoroughly other factors related to the decision to start infertility treatment (e.g. cultural/social factors).