

In Vitro Fertilization – Women’s Experiences

-The Effects of Psychological Stress on the Outcome -

-Psychological Support from Encounters with a Midwife -

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av

Lisbeth Anderheim

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- I. **Does psychological stress affect the outcome of in vitro fertilization?**
Anderheim L, Holter H, Bergh C and Möller A.
Human Reproduction 2005;20;10:2969-2975
- II. **Extended encounters with midwives at the first IVF cycle: a controlled trial.**
Anderheim L, Holter H, Bergh C and Möller A.
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Handledare: Professor Christina Bergh
Avd. för obstetrik och gynekologi
Institutionen för kliniska vetenskaper
Göteborgs universitet

Biträdande handledare: Professor Anders Möller
Nordiska Högskolan för Folkhälsovetenskap i Göteborg

Ledamöter i betygsnämnden: Docent Torbjörn Hillensjö
Professor Gunilla Sydsjö
Docent Birgitta Wickberg

Ordförande vid seminariet: Professor emeritus Per-Olof Janson

ABSTRACT

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In Vitro Fertilization – Women's Experiences. The Effects of Psychological Stress on the Outcome. Psychological Support from Encounters with a Midwife.

Department of Obstetrics and Gynaecology, The Sahlgrenska Academy, Göteborg University, SE-413 45 Göteborg Sweden.

Feelings associated with infertility, demanding tests and the in vitro fertilization (IVF) treatments may induce psychological stress. Therefore it is very important to develop methods to improve the care for infertile couples. Many researchers have studied the relationship between psychological stress and outcome after IVF, but support for a causal relationship is often weak. Several intervention models for reduction IVF related stress have been developed and evaluated. In some models counselling is seen as beneficial to the experienced stress and in others no effects are found.

Objective: The aim of this study was to investigate infertile women's emotional response before, during and after the first in vitro fertilization cycle and to determine whether there is any association between psychological stress and outcome, controlling for known physiological predictors. Another aim was to evaluate the effects of extended midwife support to infertile women on psychological well-being and on the women's experiences of the treatment procedure and to compare pregnancy and live birth rates between this kind of intervention and a control group.

Methods: A total of 166 couples were recruited. The women were studied during their first IVF treatment at the clinic. Structured and open-ended questions were responded to on three occasions: before starting treatment, during the treatment and about one month after the first cycle was completed. The women self-rated their psychological general well-being (PGWB index), issues relating to effects on infertility, effects on relationship with partner, intensity of the child wish, meaning of reproduction, life situation, the woman's personality, the couple's emotional support to each other and understanding of their feelings and support from staff and other infertile persons. The women's perceptions of the treatment, the women's opinions about alternative solutions to IVF treatment and support from the staff were assessed with open-ended questions. Forty-nine couples out of the 166 had extended encounters with a midwife about one month before the hormonal down-regulation, at one appointment during the treatment and directly after the first treatment. Midwives were trained in nondirective techniques and the couples were guided to talk about what they felt and were of importance to them. All encounters were documented as written narratives immediately afterwards. In paper I the answers from women who became pregnant and those who did not were compared. In paper II a comparison was performed between women having midwife encounters and those who did not.

Quantitative data was analysed with non-parametric statistical methods, the open-ended questions and the summary of the narratives were analyzed with qualitative content analysis.

Results: Before starting the treatment the women scored high on the PGWB scale and 'The effects on infertility scale', which showed that the psychological health of the women as a group was very good prior to their first visit to the clinic. No differences were found between pregnant and non-pregnant women in the PGWB index, effects of infertility and effects on the relationship. Neither were any differences found with regard to intensity of child-wish, meaning of reproduction, difference between ideal and real-life situations and optimism versus pessimism. No significant differences were observed in a subgroup analysis including women who had very high scores for stress between the pregnant and non-pregnant groups. In a multivariate analysis the only variable that was significantly associated with pregnancy was the number of good quality embryos transferred. There was no indication that stress, measured by any of the scores in this study, independently influenced pregnancy rate (Paper I). Encounters with a midwife had no effects on the women's psychological well-being at any measurement occasion when the structured questions were studied, but in the answers from the open-ended questions, significantly ($P=0.01$) more women in the non-pregnant/ intervention group were completely satisfied with the care and support they received at the clinic than in the non-pregnant/control group (Paper II).

Conclusions: In the present study, no association could be demonstrated between psychological stress experienced by infertile women and treatment outcome. This information can help women to reduce the experienced stress related to IVF treatment. The intervention model with extended encounters with midwives seemed to be an effective method to give the couples the opportunity to understand and to learn about each others reactions and emotions related to infertility and to be seen as individuals and as couples.

Keywords: *Counselling, in-vitro fertilization, IVF, outcome, midwives, psychology, stress, well-being*

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