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## Transition to parenthood in infertile couples

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### Abstract

Pregnancy and parenting could be complex psychologically for infertile couples who conceived through Assisted Reproduction Treatment (ART). This study examines transition to parenthood of women and men during their first pregnancy obtained with ART. A face-to-face semi-structured interview was administered to 15 Italian couples waiting for the first child after a conception with ART. The interview, aimed to investigate the story of pregnancy, self-imagine as parents and the imagine of child, was analyzed in order to merge principal themes. Results: Medically assisted pregnancy constitutes an extremely stressful, highly medicalised experience, that the couple, however, narrated according to a basic plot consisting in four phases: doubt, final sentence, victory, monitoring. Results suggest need of psychological support and health intervention for infertile couples who conceived through ART.

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### 1. Introduction

Medically assisted procreation has become in these years an increasingly widespread technique (cfr. de Mouzon et al., 2010 for a review). This is partly due to scientific progress, which has improved intervention techniques, and partly to cultural change, which has encouraged couples to turn to research centers. However, recourse to this method is not without consequences at a psychological level. In fact even if some studies report that women and men who conceive through ART seem to adjust well to pregnancy and the early postpartum period (e.g. Fisher, Hammarberg, & Baker, 2008; Harf-Kashdai & Kaitz, 2007) most investigations have suggested that pregnancy and parenting may be psychologically more complex after assisted conception than after spontaneous conception (Sandelowski, Harris, & Holditch-Davis, 1990; Dunnington & Glazer, 1991; Brockington, 1996).

Some studies comparing non-fertile and fertile couples have revealed higher levels of depression and anxiety in women and men who had undergone ART compared to couples who had conceived spontaneously. Women who conceived after ART were found to manifest a higher rate of depressive disorders compared to both their partners and women who conceived spontaneously (Hsu & Kuo, 2002; Lok, Lee, Cheung, Chung, Lo, & Haines, 2002; Monti, Agostini, Fagandini, Paterlini, La Sala, & Blickstein, 2008; Monti, Agostini, Fagandini, La Sala, & Blickstein, 2009). Moreover, they seemed to be more emotionally vulnerable (Hart, 2002; Hjelmstedt, Widstro, & Collins, 2006), showed higher levels of distress (Van Balen, Naaktgeboren, & Trimbos-Kemper, 1996; Hart, 2002;

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Hjelmstedt, Widstro, & Collins, 2006), and reported higher anxiety during pregnancy compared to their partners and women who had conceived spontaneously (Bernstein, 1990; Bernstein, Lewis, & Seibel, 1994; McMahon, Ungerer, Tennant, & Saunders, 1997; Hjelmstedt et al., 2003; Hsu & Kuo, 2002; Lok, Lee, Cheung, Chung, Lo, & Haines, 2002). Furthermore, women who had experienced assisted conception were more anxious about the risk of losing the pregnancy (Bernstein, 1990; Hjelmstedt et al., 2003), expressed more fears about fetal abnormalities and survival as well as the risk of damage to the infant from childbirth, and they manifested anticipatory anxiety about being separated from the baby (McMahon et al., 1997). It has also been revealed that, during pregnancy, women and men who underwent ART had high expectations about themselves as parents (Bernstein, 1990; McMahon, Ungerer, Tennant, & Saunders, 1997) and idealized expectations in regard to their baby (Bernstein, 1990).

While many studies have investigated which problems and difficulties are encountered by infertile couples during ART treatment more knowledge is needed regarding the transition phase to parenthood (Hammarberg, Fisher, & Wynter, 2008). In fact new findings on transition to parenthood in these couples could help parents, first of all, psychologists, educators, practitioners and pediatrics to know how to intervene during the treatment phase and after childbirth. The present study proposes to explore the psychological processes that develop in infertile couples who have experienced a pregnancy via Assisted Reproduction Treatment (ART). The specific approach will be that of focusing on transition to parenthood. Because autobiographical methods are particular effective to study transition phases of life allowing the reconstruction of the past experience from a subjective point of view (Sugarman, 2001), the method used will be the autobiographical interview in order to individuate the main plot of transition emerging from fathers' and mothers' narratives. Further, given women's and men's different experiences of pregnancy, we chose to consider both members of the same couple in order to compare women's and men's adjustment to parenthood and self image. This builds on to previous research because the majority of research on adjustment to parenthood in people following ART has focused on women, and few studies have recruited couples and report data from men (see Hammarberg et al., 2008 for a review).

## **2. Methods**

### *2.1. Instruments and procedure*

The present study was conducted at the Careggi University Hospital Agency's Centre for the Physiopathology of Human Reproduction, where couples are treated and monitored from their first appointment until the birth of the baby.

In order to explore women and men's transition to parenthood, a face-to-face, semistructured, autobiographical interview was selected as the most appropriate qualitative method.

The main following open-ended questions were used in the present study in a double version for men and women: "Can you tell me the story of your pregnancy?"/"Can you tell me your story with your wife's pregnancy?", 2. "How do you imagine yourself as a mother (father): dreams, fantasies, and worries?". 3. "How do you imagine your baby: dreams, fantasies, and worries?". Further questions were posed depending on the parents' answers and the specific contextual experience narrated by the couple.

Interviews were coded and transcribed verbatim and then analyzed by two coders according a global and qualitative level for content. Two coders read and re-read the transcript to identify themes, patterns, salient points, common threads and trends, and to search for deviations and exceptions to these trends (Bowling, 1997; Forrest Keenan, van Teijlingen, & Pitchforth, 2005). The aim of the analysis was that of finding the general plot mothers and fathers used to recount their pregnancy experience. Six general themes emerged: the desire to have a baby, the reactions to the news of infertility, the pregnancy process, the representation of self as mother, the representation of self as father, and the representation of the baby. Further these themes were analyzed diachronically in order to focus the plot of pregnancy.

### 2.1.1. Participants

15 Italian couples (15 women and 15 men) who were expecting their first child after having conceived through ART were recruited for the present study. In our sample, 6 women became pregnant on their first attempt, 5 became pregnant after some unsuccessful assisted reproduction treatments, and 4 women became pregnant after a previous experience of successful treatment followed by miscarriage. Only one woman in our sample was not Caucasian. The mean age of the women was 36 years (s.d. = 4 years) and the mean age of the men was 38 years (s.d.= 4.3 years). Responsibility for infertility in the couple was ascribed to the female partner in 40% of cases, in 36% to the male partner, in 4% to both partners, and in 20% of cases it was unknown.

## 3. Results

The plot related to a story could be divided into four phases.

*First phase.* It could be defined as the “doubt” phase. This regards the long process that guides the pregnancy from the first failed attempts of a couple who believe they are fertile. These attempts can be without a result or even trigger a process of conceptions that then terminates in one or more spontaneous abortions. In this phase, together with the desire for a child, the first doubts and worries arise. This phase can even last a few years depending on how long the couple take to recognize the existence of a serious problem.

*Second phase.* It is characterized by the anxious need to know until the final “sentence”. The couple decide to go to the doctor and therefore to a specialized center for a diagnostic assessment. During this second phase, the two partners undertake courses of treatment to overcome the barriers to pregnancy. This second phase concludes with a response which sounds to their ears like a sentence and, with respect to it, they react with surprise, incredulity, and refusal. There are naturally differences depending on whether both parents are responsible for this infertility or whether the responsibility falls to one or the other partner. The difference between these two situations lies in the sense of guilt or great inadequacy that characterizes the second case, given that in the first the responsibility is shared

*Third phase.* It is the phase of the struggle and the victory. The couple decide to undertake ART and undergo all the treatments necessary and the attempts at artificial insemination. The initial failures are experienced as abortions. When conception occurs, the achievement of this goal is experienced like the end of a nightmare, a victory in a competition.

*Fourth phase.* It is the monitoring phase. Ulterior fears immediately arise, the main one of these being that the victory achieved is a false result and that the pregnancy will be interrupted. This brings about an intense state of stress and an intense period of monitoring. If bodily changes constitute a decisive indicator for monitoring the pregnancy process in fertile couples in these couples the bodily changes take on a value that is even larger and more diverse. They connect the medical analyses to the fear that yet again the initial process of pregnancy will have an inauspicious result. The woman, rather than accepting the physical changes as confirmation of her maternity, fears not being able to be a mother right until the end. Therefore these make it more difficult for her to let herself go to the process of pregnancy. The perception of the physical changes of the woman are an important indicator for the man too, but this indicator also helps him to convince himself that he is a father and assists him to enter into the pregnancy process. When the fetal movements occur, they are a sign of the life of the baby and of an initial attribution of personal characteristics. The fourth phase therefore may be blocked after a short time with a further failure only then to recommence with a new conception, or it can proceed, changing itself little by little as the fetus becomes increasingly perceptible.

## 4. Conclusions and recommendations

In conclusions this research has highlighted how the couple recount their experiences of a story with a shared and structured plot that allows the adventures of two protagonists to emerge. The protagonists pass through phases of

doubt, anxiety, disappointments, fears and in the end reach, thanks to the help of the doctor, the achievement of the goal. The plot of the story of the medically assisted pregnancy is comparable to those plots in which the hero is called to face a difficult test (for example: to defeat the sterility-monster) and with the help of a magical instrument (for example: a magic sword-medical instruments), after alternate events (for example: being close to death-abortions) the hero achieves the final victory (see Brooks, 2004 for these possible analogies).

The presence of this plot in ART couples' narratives suggests that couples may live their pregnancy in terms of an idealization's of parenthood. This result is consistent with Hammamberg 's opinion (Hammamberg et al., 2008) that parenthood tends to be idealized after infertility and that ART parents are not fully -prepared for the unrelenting workload and losses that are inevitable for parents of newborns. Moving from previous considerations it becomes relevant that psychologists, educators and practitioners help these couples during their transition to parenthood in facing the real process of pregnancy and childbirth.

Moreover, we found that especially women may experience difficulty to give free course to the process of pregnancy. This result, that confirms previous research (Bernstein et al., 1994; McMahon et al., 1999), seems to reflect these women's difficulty to develop an antenatal attachment to the foetus. It is now necessary to understand what the ulterior developments of this event are after the birth of the baby when couples start their domestic routine with their child. Even it is possible that after childbirth, when women and men realize that they have a "real" baby, they develop an emotional relationship with their child it seems however important that practitioners can give some help to ART couples during the transition to parenthood.

Finally, medically assisted pregnancy therefore constitutes an extremely stressful, highly medicalised experience, that the couple, however, experience in a shared manner and this sharing could function as a protective element in the face of the stress. Further research is necessary to evaluate if this sharing will also remain afterwards, above all comparing with couples in which the responsibility for the sterility is attributable to the man, to the woman or to both partners.

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## References

- Bernstein, J., Lewis, J., Seibel, M. (1994). Effect of previous infertility on maternal-fetal attachment, coping styles and self-concept during pregnancy. *Journal of Womens Health*, 3, 125–133
- Bernstein, J. (1990). Parenting after infertility. *Journal of Perinatal & Neonatal Nursing*, 4, 11–23.
- Bowling, A. (1997). *Research Methods in Health: Investigating Health and Health Services*. Buckingham: Open University Press.
- Brockington, I. (1996). *Motherhood and Mental Health*. New York: Oxford University Press.
- Dunnington, R. M., Glazer, G. (1991). Maternal identity and early mothering behaviour in previously infertile and never infertile women. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 20, 309–318.
- Booker, C. (2004). *The seven basic plots: why we tell stories*. Trowbridge: Cromwell Press.
- Fisher, J.R., Hammarberg, K., & Baker, G.H. (2008). Antenatal mood and fetal attachment after assisted conception. *Fertility and Sterility*, 89, 1103–1112.
- Forrest Keenan, K; van Teijlingen, E; Pitchforth, E. (2005). The analysis of qualitative research data in family planning and reproductive health care, *Journal of Family Planning and Reproductive Health Care*, 31, 40–43.
- Hammarberg K, Fisher JR, Wynter KH. (2008). Psychological and social aspects of pregnancy, childbirth and early parenting after assisted conception: a systematic review. *Human Reproduction Update*, 14(5), 395-414.
- Harf-Kashdaei, M.A., & Kaitz, M. (2007). Antenatal moods regarding self, baby, and spouse among women who conceived by in vitro fertilization. *Fertility and Sterility*, 87, 1306–1313.
- Hart VA. (2002). Infertility and the role of psychotherapy. *Issues Ment Health Nurs*, 23, 31–41.
- Hjelmstedt A, Widstrom A-M, Wramsby H, Matthiesen A-S, Collins A. (2003). Personality factors and emotional responses to pregnancy among IVF couples in early pregnancy: a comparative study, *Acta Obstetrica and Gynecologica Scandinavica*, 82, 152–161.
- Hjelmstedt A, Widstrom A, Collins A. (2006). Psychological correlates of prenatal attachment in women who conceived after in vitro fertilization and women who conceived naturally, *Birth*, 33, 303–10.

- Hsu YL, Kuo BJ. (2002). Evaluations of emotional reactions and coping behaviours as well as correlated factors for infertile couples receiving assisted reproductive technologies, *The Journal of Nursing Research*, 10, 291–302.
- Lok IH, Lee DT, Cheung LP, Chung WS, Lo WK, Haines CJ. (2002). Psychiatric morbidity amongst infertile Chinese women undergoing treatment with assisted reproductive technology and the impact of treatment failure, *Gynaecologic and Obstetric Investigations*, 54, 195–9
- McMahon CA, Tennant C, Ungerer JA, Saunders D. (1999). 'Don't count your chickens': A comparative study of the experience of pregnancy after IVF conception, *Journal of Reproductive of Infant Psychology*, 17, 345–356.
- McMahon CA, Ungerer JA, Tennant CC, Saunders DM. (1997). Psychosocial adjustment and the quality of the mother-child relationship at four months postpartum after conception by in vitro fertilization, *Fertility and Sterility*, 68, 492–500.
- Monti F, Agostani F, Fagandini P, La Sala GB, Blickstein I. (2009). Depressive symptoms during late pregnancy and early parenthood following assisted reproductive technology. *Fertility and Sterility*, 91, 851–7.
- Monti F, Agostini F, Fagandini P, Paterlini M, La Sala GB, Blickstein I. (2008). Anxiety symptoms during late pregnancy and early parenthood following assisted reproductive technology, *Journal of Perinatal Medicine*, 36(5), 425-32.
- de Mouzon, J., Goossens V, Bhattacharya S, Castilla JA, Ferraretti AP, Korsak V, Kupka M, Nygren KG, Nyboe Andersen A, (2010). The European IVF-monitoring (EIM) Consortium, for the European Society of Human Reproduction and Embryology (ESHRE)- Assisted reproductive technology in Europe, 2006: results generated from European registers by ESHRE, *Human Reproduction*, 25, 8, 1851–1862.
- Sandelowski M, Harris B, Holditch-Davis D. (1990). Pregnant moments: the process of conception in infertile couples, *Research in Nursing & Health*, 13, 273–282.
- Sugerman, L. (2001). *Life-span development*. Hove (East Sussex): Psychological Press.
- Van Balen F, Naaktgeboren N, Trimbos-Kemper TCM. (1996). In-vitro fertilization: the experience of treatment, pregnancy and delivery, *Human Reproduction*, 11, 95–98.