

A Five-Year Follow-up Survey Using Regression Analysis Finds Only Maternal Age to Be a Significant Medical Predictor for Infertility Treatment

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Abstract : For many couples bearing children is a consistent life goal; however, it cannot always be fulfilled. Undergoing infertility treatment does not guarantee pregnancies and live births. Couples have to deal with miscarriages and sometimes even discontinue infertility treatment. Significant medical predictors for the outcome of infertility treatment have yet to be fully identified. To further our understanding, a cross-sectional five-year follow-up survey was undertaken, in which 95 women and 82 men that have been treated at the Women's Hospital of Heidelberg University participated. Binary logistic regressions, parametric and non-parametric methods were used for our sample to determine the relevance of biological (infertility diagnoses, maternal and paternal age) and lifestyle factors (smoking, drinking, over- and underweight) on the outcome of infertility treatment (clinical pregnancy, live birth, miscarriage, dropout rate). During infertility treatment, 72.6% of couples became pregnant and 69.5% were able to give birth. Suffering from miscarriages 27.5% of couples and 20.5% decided to discontinue an unsuccessful fertility treatment. The binary logistic regression models for clinical pregnancies, live births and dropouts were statistically significant for the maternal age, whereas the paternal age in addition to maternal and paternal BMI, smoking, infertility diagnoses and infections, showed no significant predicting effect on any of the outcome variables. The results confirm an effect of maternal age on infertility treatment, whereas the relevance of other medical predictors remains unclear. Further investigations should be considered to increase our knowledge of medical predictors.

Keywords : advanced maternal age, assisted reproductive technology, female factor, male factor, medical predictors, infertility treatment, reproductive medicine

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