



The assessment of the influence of lifestyle on infertility of various origins using correspondence analysis

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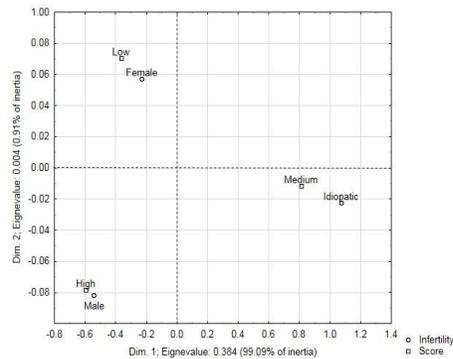
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The problem of infertility is real in nowadays world. In highly developed countries – around 10-12% of couples have problems with conceiving. Successful treatment of infertility depends on many factors – including environmental factors and lifestyle. Diet is one of the components that can affect fertility both positively and negatively. The aim of this research was to assess the influence of the knowledge about fertility diet a person possesses and its actual use, and different types of fertility disorders among women undergoing treatment in a fertility clinic.

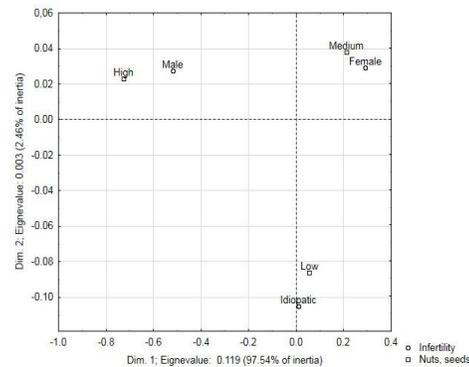
Correspondence map: cause of infertility vs. the number of knowledge assessment points



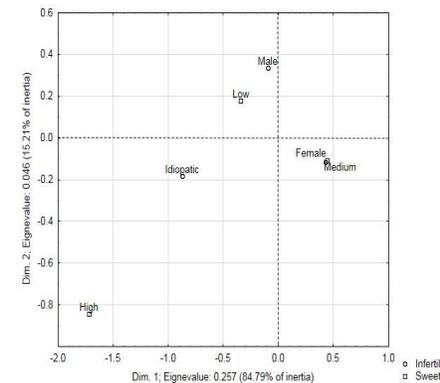
In the statistical analysis, the examined women were divided into 3 groups, according to their couple's cause of infertility. Couples' infertility disorders were described as: the female factor, the male factor, and the idiopathic factor. The group completed a questionnaire consisting of questions about the frequency of consumption of specific products and knowledge about the impact of diet on fertility.

The graphic presentation of the analysis of the results used in the correspondence analysis consists in points illustrating the categories of features, most often plotted on a two-dimensional coordinate system, in which as little as possible information about the actual structure of the relationship between them is lost.

Correspondence map: cause of infertility vs. consumption of nuts and sweets



Correspondence map: cause of infertility vs. consumption of sweets



Correspondence analysis was used to find statistically significant links between the groups and certain features. Differences between the groups were visible both in the consumption of sweets, chips and sticks, nuts and seeds, and in the number of points scored in the knowledge test.

Women with the male factor as the main cause of infertility scored the highest number of points in the test concerning the knowledge about the fertility diet; slightly fewer points were scored by those with the idiopathic factor of infertility; and the lowest number of points was scored by women with the female factor as the cause of infertility. Women from couples with idiopathic infertility were characterized by the most frequent consumption of sweets, crisps and sticks, followed by women with the female factor as the main cause of infertility; the lowest frequency of consumption of sweets was identified among women whose cause of infertility was identified on their partner's side. Nuts and seeds were consumed the most frequently by women who chose the male factor as the main cause of infertility, followed by women with the female factor as cause of infertility, while women who chose the idiopathic cause of infertility consumed nuts and seeds the least frequently.

Conclusions:

When the groups of products are divided into favorable and unfavorable for the reproductive health, the results may suggest that women with the cause of infertility on their side make more dietary mistakes that can lead to their fertility problems; when the cause is on their partner's side, women are more concerned with the fertility diet and try to eat healthier together with their partner. The results indicate different levels of interest in the effects of diet on fertility depending on the cause of infertility. Nevertheless, a bigger picture always needs to be recognized – therefore, to make the right conclusions, more data is needed.