Assessing The Impact Of Listening To Music On Women Undergoing Fertility Treatment: A Randomised Controlled Trial

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Background

OBJECTIVES: To determine whether listening to music at certain stages of embryo transfer affects state anxiety and clinical pregnancy rate.

Methods: This was an assessor-blind parallel randomised control trial with balanced randomization.

Outcomes: Change in state anxiety before and after treatment completion, as measured by the STAI Form Y (state anxiety) immediately prior to and immediately following a post-treatment observation period.

Method

PARTICIPANTS: Women aged 25-43 years (N=46) undergoing IVF/ICSI with fresh or frozen embryos in 10 cycles were recruited from a fertility clinic (February 2013 and December 2013).

INTERVENTION: Listening to self-selected music via headphones during and after 15 minutes following embryo transfer (music group) or no music (Control group).

OUTCOME MEASURES:

Primary outcome: Change in anxiety before and after treatment  (quartiles)

Secondary outcomes:
1. Background anxiety: All the participants completed a measurement of their tendency towards anxiety (STAI Form Y) prior to the fertility treatment to establish a baseline.
2. Quality of life:
   - Ascertainment of quality of life:
   - Outcome measures:
     - Quality of life:
       - Ascertainment of quality of life:
       - Outcome measures:

RANDOMISATION: Participants were stratified by their degree of anxiety and randomised in blocks of four to either music or control groups using computer-generated randomisation algorithms.

STATISTICS:
- Power calculations were based on 50% anxiety change.
- Data handling was performed using SPSS Version 21 (2012) (GraphPad Software, Inc. USA) and SPSS Version 21 (2012) (IBM, United Kingdom). Group differences were evaluated using the Chi-squared test and continuous data was reported as means ± standard deviation.
- Primary results and secondary analysis of data were performed using SPSS Version 21 (2012) (GraphPad Software, Inc. USA) and SPSS Version 21 (2012) (IBM, United Kingdom).
- Results with self-selected anxiety and quality of life measures are presented in a bar graph: Clinical anxiety levels were significantly (P<0.05) lower in the music group compared to the control group.

RESULTS:

Change in state anxiety before and after treatment: comparison of the music and control groups.

Change in state anxiety before and after treatment: comparison of the music and control groups.

CONCLUSION: Listening to self-selected music during and after embryo transfer had a beneficial effect on anxiety and pregnancy outcome.

References

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Conclusion

![Graph showing change in state anxiety before and after treatment](image)

- The authors report a significant reduction in anxiety in the music group compared to the control group.
- No adverse events occurred during the study period.
- The results suggest that music may have a beneficial impact on anxiety and pregnancy outcome.
- Further research is needed to explore the potential clinical implications of these findings.