The Effect of Alternative Therapies on Decreasing Psychosocial Factors in Women Undergoing In Vitro Fertilization

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Introduction

- In vitro fertilization (IVF) is often a couple’s last resort in terms of overcoming infertility in order to achieve pregnancy.
- About 6% of married women in the US between the ages of 15-44 years experience infertility (Infertility, 2015).
- 7.4 million women of this age range having utilized infertility services (Infertility, 2015).
- As of 2013, 170,000 total IVF treatment cycles in the US (SART, 2013).
- IVF can be financially burdensome even for those who do receive insurance coverage (Martin, et al, 2011).
- Women undergoing treatment frequently report feelings of anxiety, depression, and distress (Greil, et al, 2010).
- Infertility-specific stress and nonspecific anxiety for women undergoing IVF can be financially burdensome even for those who do receive insurance coverage (Martin, et al, 2011).
- Alternative mind-body and body-based therapies shown to be effective in decreasing psychosocial factors (i.e. distress, anxiety) in women undergoing IVF treatment.

This literature review aims to evaluate the effect of alternative therapies on reducing psychosocial factors in women undergoing IVF.

Results

- N=126 Routine Care Control Group
- N=124 AA Group
- N=45 AA Group
- N=66 PRCI-Comparison Group
- N=37 PRCI-Treatment Outcome: medical chart review
- N=02 PRCI-monitoring control group

Women reported more anxiety during waiting period than before treatment. PRCI did not significantly reduce anxiety, depression, or daily negative emotions during waiting period. PRCI patients reported more positive emotions during the waiting period than the monitoring control group. No difference in clinical outcome between groups.

Discussion

- Women often measure high on anxiety, stress, uncertainty, and depression scales prior to IVF treatment.
- This review revealed the positive impact that alternative therapies have on mental health for women undergoing IVF.
- Although there were mixed results regarding whether alternative therapies led to more successful pregnancy rates, these interventions are important for a woman’s psychosocial health.
- Providing women with the option to use alternative therapies during the IVF process could be a positive way of implementing psychosocial reducers into treatment plans.
- Results of this review inform both women’s healthcare providers as well as women undergoing IVF treatment on the positive effects of alternative therapies during the difficult process.

Table 1: Quantitative and Qualitative Studies of the effect of alternative therapies on reducing psychosocial factors in women undergoing IVF

<table>
<thead>
<tr>
<th>Authors / Year</th>
<th>Country</th>
<th>Design</th>
<th>Intervention</th>
<th>Sample</th>
<th>Focus</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk et al. (2010)</td>
<td>United States</td>
<td>Observational, prospective, cohort study</td>
<td>Acupuncture</td>
<td>Intervention Group N=20 Control Group N=57</td>
<td>Stress: PSS</td>
<td>Acupuncture group: lower stress scores pre- and post-embryo transfer compared to control group; pregnancy rate of 64.7%, compared to control group of 42.3%.</td>
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<td>Martin et al. (2011)</td>
<td>N=126 Routine Care Control Group</td>
<td>N=124 AA Group</td>
<td>N=45 AA Group</td>
<td>N=66 PRCI-Comparison Group</td>
<td>N=37 PRCI-Treatment Outcome: medical chart review</td>
<td>PRCI-comparison group had lower anxiety at Time 2 and 3 but not lower depression levels. PRCI-comparison group had higher clinical pregnancy rates but no difference in clinical pregnancies with fetal heartbeat.</td>
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<td>O’Dea et al. (2014)</td>
<td>Netherlands</td>
<td>Positive reinforcement coping intervention (PRC)</td>
<td>PRCI-Monitoring Control Group N=137 Monitoring Control Group N=128 Routine Care Control Group N=124</td>
<td>Anxiety and depression: BADS Clinical Psychological characteristics</td>
<td>Anxiety: STAI, VAS-A</td>
<td>PRCI-comparison group had lower anxiety at Time 2 and 3 but not lower depression levels. PRCI-comparison group had higher clinical pregnancy rates but no difference in clinical pregnancies with fetal heartbeat.</td>
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<td>O’Dea et al. (2014)</td>
<td>Netherlands</td>
<td>Positive reinforcement coping intervention (PRC)</td>
<td>PRCI-Compliance Group N=110 (Additional group included in n=177 women above)</td>
<td>Anxiety and depression: depression scores</td>
<td>Anxiety and depression: BADS Clinical Psychological characteristics</td>
<td>PRCI-comparison group had lower anxiety at Time 2 and 3 but not lower depression levels. PRCI-comparison group had higher clinical pregnancy rates but no difference in clinical pregnancies with fetal heartbeat.</td>
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<td>Tanaka et al. (2013)</td>
<td>Japan</td>
<td>Holistic yoga</td>
<td>Intervention Group N=45 Control Group N=77</td>
<td>Anxiety: STAI, VAS-A, Fert-Qol, EDS</td>
<td>Anxiety: STAI, VAS-A, Fert-Qol, EDS</td>
<td>PRCI-comparison group had lower anxiety at Time 2 and 3 but not lower depression levels. PRCI-comparison group had higher clinical pregnancy rates but no difference in clinical pregnancies with fetal heartbeat.</td>
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