Analysis of attachment and anxiety in couples experiencing infertility using the Actor Partner Interdependence Model (APIM)


* ANDROS Day Surgery, Psychology Unit, Palermo, Italy
** ANDROS Day Surgery, Medical Statistics Unit, Palermo, Italy
*** ANDROS Day Surgery, Reproductive Medicine Unit, Palermo, Italy

Abstract

Adult attachment, anxiety and avoidance, have differential actor and partner relationships with female and male partner’s anxiety and infertility stress. Our findings suggest that a dyadic perspective is important for understanding a couple’s reaction to infertility.

Background

The few previous studies on the role of attachment dimensions in couples dealing with infertility demonstrated that attachment dimensions influence the distress of individuals undergoing infertility treatment (Van den Broeck et al., 2010; Donarelli et al., 2012). Nevertheless, in previous studies the one partner’s attachment was not examined while controlling for the other partner’s attachments. The purpose of this study is to examine how one’s own and one’s partner’s attachment dimensions, anxiety and avoidance, relate to one’s own and one’s partner’s state anxiety and infertility stress in couples experiencing infertility.

Methods

Participants

385 infertile couples (770 participants), undergoing a first IVF or ICSI treatment, were recruited at the ANDROS Day Surgery private clinic in Palermo (Italy). Mean age (±SD) was 39.97 (±4.84) for women and 37.01 (±5.33) for men. The mean duration of primary infertility was 3.61 (±2.50) years.

Measures

Participants filled out the Experience in Close Relationships scale, the Fertility Problem Inventory, and the State-Trait Anxiety Inventory prior to starting the IVF/ICSI treatment.

Statistical Analyses

Path analysis within a Structural Equation Modeling (SEM) framework was used to analyze the Actor Partner Interdependence Model – APIM (Fig. 1).

Results

Preliminary analyses

The response rate was 84%. Separate analyses of variance (ANOVA) for females and males did not show significant differences among the four infertility conditions (unexplained, male cause, female cause, both members) on the FPI overall score (F (3, 351) ranges from 0.18 to 0.92), ECR scales (F (3, 381) ranges from 0.00 to 2.95), and STAI (F (3, 351) ranges from 0.17 to 0.94).

APIM analyses

As hypothesized, all of the actor effects and none of the partner effects for attachment and state anxiety were significant: female attachment anxiety and state anxiety, female attachment avoidance and state anxiety, male attachment anxiety and state anxiety, male attachment avoidance and state anxiety (Tab. 1). Also, there were two significant partner effects: the female’s attachment anxiety and avoidance were significantly related to her male partner’s infertility stress (Tab. 1).

However, the partner effect for male attachment avoidance (as well as for attachment anxiety) and female infertility stress was not significant.

Finally, female and male attachment anxiety were significantly correlated (r = 0.41, p < 0.05) as were female and male attachment avoidance (r = 0.46, p < 0.05). Also, female and male state anxiety were significantly correlated (r = 0.40, p < 0.05) as were the values for female and male infertility stress (r = 0.49, p < 0.05). These high correlations between female and male partner anxiety demonstrate the extensive dependencies that exist in this type of couple data.

We recommend that either multi-level modeling or APIM should be used in future research examining data from couples experiencing infertility.

Table 1 – Effects from the actor partner interdependence model for attachment anxiety and state anxiety.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Female actor effects</th>
<th>Male actor effects</th>
<th>Female partner effects</th>
<th>Male partner effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment anxiety and avoidance</td>
<td>0.13*</td>
<td>0.13*</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Attachment anxiety and state anxiety</td>
<td>0.13*</td>
<td>0.13*</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Attachment avoidance and state anxiety</td>
<td>0.26</td>
<td>0.26</td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td>Attachment avoidance and infertility stress</td>
<td>0.42</td>
<td>0.42</td>
<td>0.38</td>
<td>0.30</td>
</tr>
<tr>
<td>Attachment avoidance and infertility stress</td>
<td>0.38</td>
<td>0.38</td>
<td>0.50</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Note: Coefficient (standardized) * p < 0.05

Conclusion

This study supports the idea that an individual’s attachment dimensions can impact his or her infertility stress. Moreover, our results have provided initial evidence regarding the influence of female attachment dimensions on male infertility stress. For female partner’s attachment seems to function only at the intrapsychological level. For male partner’s attachment functions both intra and interpersonally.

If a counselor is addressing attachment issues, as a source of infertility anxiety, with a male patient who is part of a couple experiencing infertility, the counselor may also need to assess possible attachment difficulties with the patients female partner.

References