

# **Emotionally Focused Therapy for Australian Couples Experiencing Infertility-Related Distress**

A Randomized Controlled Trial

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# INTRODUCTION

## 1.1 Scope, Impact and Significance

Infertility, operationally defined as the inability to achieve clinical pregnancy after twelve months of regular unprotected sexual intercourse or six months for women aged 35 years or older (Zegers-Hochschild et al., 2017), affects one in six Australian couples according to Family Planning Australia (2021). This reproductive challenge creates complex psychological sequelae characterized by clinically significant symptoms of depression, anxiety, and stress that meet diagnostic thresholds on standardized assessment instruments. The psychological burden extends beyond individual symptomatology to encompass relationship distress, defined as scores below 97 on the Dyadic Adjustment Scale indicating clinically significant relationship dysfunction (Spanier, 1976).

The Australian healthcare system currently addresses infertility through medical interventions including assisted reproductive technologies, yet psychological support remains fragmented and inadequately integrated within fertility care pathways. This project proposes implementing *Emotionally Focused Couples Therapy*, a manualized intervention based on attachment theory that restructures emotional responses and interaction patterns through systematic therapeutic processes (Johnson, 2019). The intervention addresses both individual psychological distress and dyadic functioning through three operationalized stages: cycle deescalation, attachment restructuring, and consolidation of secure bonding patterns.

The significance of this intervention extends beyond symptom reduction to address fundamental attachment disruptions that infertility creates within couple relationships. When reproductive expectations remain unfulfilled, partners experience attachment injury characterized by accessibility failures and responsiveness breakdowns that amplify individual distress while eroding relationship security. This project provides systematic intervention addressing these attachment disruptions through evidence-based therapeutic processes, potentially improving both psychological outcomes and fertility treatment persistence for Australian couples navigating reproductive challenges.

## 1.2 Literature Review

### 1.2.1 Empirical Perspectives

The psychological impact of infertility demonstrates consistency across international samples, with Australian data revealing comparable distress patterns to global populations. Depression, operationally defined as scores exceeding 21 on the Depression subscale of the Depression Anxiety Stress Scales indicating severe symptomatology (Lovibond & Jackson, 1995), affects between 23% and 57% of individuals undergoing fertility treatment. Anxiety disorders, characterized by excessive worry and physiological arousal scoring above clinical thresholds, manifest in 67% of women experiencing fertility challenges (Gozuyesil et al., 2019).

Recent meta-analytic evidence examining Emotionally Focused Couples Therapy demonstrates robust effectiveness for relationship distress across diverse populations. Beasley & Ager (2019) analyzed nine randomized controlled trials revealing a weighted effect size using Hedges'  $g = 2.09$  (95% CI: 0.04, 4.14), indicating substantial therapeutic benefit exceeding conventional intervention thresholds. Follow-up analyses demonstrated maintenance of gains with Friedman's test revealing sustained improvement ( $\chi^2 = 6.500$ ,  $p = 0.039$ ), suggesting durability of therapeutic changes beyond active intervention periods.

The theoretical mechanisms underlying EFT align particularly with infertility-related distress patterns. Attachment theory posits that threats to reproductive goals activate attachment systems, triggering hyperactivation strategies characterized by anxious pursuit or deactivation strategies manifesting as emotional withdrawal (Mikulincer & Shaver, 2016). These patterns create negative interaction cycles wherein one partner's pursuit for emotional connection triggers the other's withdrawal, establishing self-perpetuating distress patterns that EFT specifically targets through systematic intervention processes.

Australian couples face unique contextual factors influencing infertility experiences, including Medicare funding limitations for assisted reproductive technologies and geographical barriers to specialized fertility services. These structural constraints compound psychological distress, making accessible psychological interventions particularly critical for this population. Evidence from Iranian samples demonstrates EFT effectiveness in reducing depression, anxiety, and stress among infertile couples (Soltani et al., 2014), though Australian-specific outcome data remains absent, highlighting the need for culturally contextualized intervention research.

### **1.2.2 Research Question and Hypotheses**

This study addresses the following primary research question using PICO framework: Among Australian couples experiencing infertility (Population), does Emotionally Focused Couples Therapy (Intervention) compared to waitlist control (Comparison) reduce psychological distress and improve relationship satisfaction (Outcomes)?

Primary hypotheses specify that couples receiving EFT will demonstrate significantly greater reductions in depression, anxiety, and stress scores on the DASS-42 compared to waitlist controls, with effect sizes exceeding  $d = 0.80$ . Secondary hypotheses predict improved relationship satisfaction on the Dyadic Adjustment Scale and improved fertility-specific quality of life, with treatment gains maintained at three-month follow-up assessment.

## METHOD

### 2.1 Participants and Recruitment

This study will recruit 48 heterosexual Australian couples currently experiencing infertility from fertility clinics in metropolitan Sydney, Melbourne, and Brisbane. Infertility is operationally defined according to World Health Organization criteria as failure to achieve clinical pregnancy after twelve months of regular unprotected intercourse for women under 35 years, or six months for women 35 years or older, confirmed through medical documentation from treating fertility specialists.

Inclusion criteria encompass couples where both partners score above mild symptom thresholds on at least one DASS-42 subscale (Depression > 14, Anxiety > 10, or Stress > 19), indicating clinically relevant distress requiring intervention. Couples must demonstrate relationship commitment through cohabitation for minimum twelve months and both partners must consent to participation. Exclusion criteria include current substance use disorders assessed through AUDIT and DUDIT screening instruments, active psychotic symptoms evaluated via clinical interview, domestic violence history screened through Conflict Tactics Scale, or concurrent couples therapy that would confound treatment effects.

### 2.2 Sample Size Calculation

Sample size determination employed G\*Power 3.1 software using the following formula for independent samples t-test:

$$n = \frac{2\sigma^2(Z_{\alpha/2} + Z_{\beta})^2}{\delta^2} \quad (2.1)$$

Where  $\sigma$  represents population standard deviation,  $Z_{\alpha/2}$  represents critical value for Type I error (1.96 for  $\alpha = 0.05$ ),  $Z_{\beta}$  represents critical value for Type II error (0.84 for  $\beta = 0.20$ ), and  $\delta$  represents minimum detectable difference.

Based on previous EFT research demonstrating effect sizes ranging from 0.80 to 2.09, conservative estimation using  $d = 0.80$  yields:

$$n = 2 \times \left[ \frac{(1.96 + 0.84)}{0.80} \right]^2 = 24.5 \text{ couples per group} \quad (2.2)$$

Accounting for 15% attrition based on previous couples intervention research, final recruitment target equals 28 couples per group, totaling 56 couples. However, resource constraints limit recruitment to 48 couples (24 per group), providing 80% power to detect large effects ( $d = 0.88$ ) while accepting reduced power for medium effect detection.

### **2.3 Intervention Protocol**

Emotionally Focused Couples Therapy follows the validated treatment manual as per Johnson (2019) across twelve weekly 90-minute sessions delivered by certified EFT therapists. The intervention progresses through three systematically defined stages with specific therapeutic tasks and process markers.

**Stage One** encompasses sessions one through four, focusing on assessment and deescalation. Therapists identify negative interaction cycles specific to infertility stressors, mapping pursuit-withdrawal patterns triggered by reproductive challenges. Couples learn to recognize how secondary emotions like anger mask primary attachment fears of abandonment or inadequacy. Process markers include couples articulating their cycle using "when-then" statements and expressing understanding of partner's position within the cycle.

**Stage Two** spans sessions five through nine, restructuring attachment bonds through choreographed enactments. Partners express attachment needs and fears directly while therapists facilitate responsive engagement from the other partner. Withdrawal partners articulate fears underlying distancing behaviors while pursuing partners soften demands to create emotional safety. Successful stage completion requires both partners accessing and expressing vulnerable emotions while experiencing acceptance from their partner.

**Stage Three** comprises sessions ten through twelve, consolidating new patterns and developing resilience narratives. Couples practice applying secure interaction patterns to infertility-specific challenges including treatment decisions and pregnancy loss. Therapists guide creation of relationship stories integrating infertility experiences within broader relationship meaning, establishing templates for future challenge navigation.

## 2.4 Measurement Protocol

Primary outcome assessment employs the Depression Anxiety Stress Scales-42 as per Lovibond & Jack-son (1995), a psychometrically validated instrument demonstrating internal consistency coefficients of 0.91 for depression, 0.84 for anxiety, and 0.90 for stress subscales. Australian normative data enables clinical threshold determination with established cut-points distinguishing mild, moderate, severe, and extremely severe symptom levels.

Relationship satisfaction assessment is measured by the Dyadic Adjustment Scale as per Spanier (1976), comprising 32 items measuring dyadic consensus, satisfaction, cohesion, and affectional expression. Clinical distress threshold of 97 distinguishes distressed from non-distressed couples with demonstrated sensitivity to therapeutic change. Australian validation studies confirm factor structure and predictive validity for relationship outcomes (Sharpley & Cross, 1982).

Secondary outcome measures include the Fertility Quality of Life questionnaire as per Boivin et al. (2011) assessing fertility-specific emotional, relational, and social functioning across 36 items with es-tablished international norms. The Experiences in Close Relationships-Revised, as per Fraley et al. (2000), measures attachment anxiety and avoidance dimensions relevant to EFT mechanisms. Process assessment is measured by the Working Alliance Inventory (Horvath & Greenberg, 1989) at sessions 3, 6, and 9 to monitor therapeutic engagement.

## 2.5 Analysis Protocol

Primary analyses employ multilevel modeling accommodating dyadic data structure with individuals (Level 1) nested within couples (Level 2) using the following equation:

$$Y_{ij} = \beta_0 + \beta_1(\text{Time}) + \beta_2(\text{Treatment}) + \beta_3(\text{Time} \times \text{Treatment}) + u_j + e_{ij} \quad (2.3)$$

Where  $Y_{ij}$  represents outcome for individual  $i$  in couple  $j$ ,  $\beta$  coefficients represent fixed effects,  $u_j$  rep-re-sents random couple intercept, and  $e_{ij}$  represents residual error.

Effect sizes will be calculated using Hedges' g formula accounting for small sample bias:

$$g = \frac{M_1 - M_2}{S_{\text{pooled}}} \times \left(1 - \frac{3}{4N - 9}\right) \quad (2.4)$$

Intent-to-treat principles guide primary analyses with maximum likelihood estimation handling miss-ing data under missing-at-random assumptions. Sensitivity analyses compare complete-case results to evaluate missing data impact. Moderation analyses explore treatment effect variation by infertility du-ration, cause, and baseline severity using interaction terms within multilevel models.

## **2.6 Fiscal Budget**

The project fiscal budget employs activity-based costing methodology normalizing expenses across the 18-month study period using the formula:

$$\text{Total Cost} = \sum (\text{Resource Units} \times \text{Unit Cost} \times \text{Time Allocation}) \quad (2.5)$$

Personnel costs constitute the primary expenditure, calculated using Australian university salary scales plus 30% on-costs for superannuation, leave provisions, and payroll tax. Research positions align with Higher Education Worker classifications based on qualification requirements and responsibility levels. Therapeutic services reflect Australian Psychological Society recommended rates for specialized couples therapy. Participant reimbursement follows National Health and Medical Research Council guidelines for research participation compensation.

**Table 2.1:** Detailed Project Budget

Budget Category	Calculation	Total Cost
<b>Personnel</b>		
Research Officer (HEW 6.4)	$\$89,426 \times 0.4 \text{ FTE} \times 1.5 \text{ years} \times 1.3 \text{ on-costs}$	\$69,751
Senior Research Officer (HEW 7.2)	$\$93,841 \times 0.2 \text{ FTE} \times 1.5 \text{ years} \times 1.3 \text{ on-costs}$	\$36,598
<b>Clinical Services</b>		
EFT Therapists	$3 \text{ therapists} \times 288 \text{ sessions} \times \$200/\text{session}$	\$57,600
Clinical Supervision	$36 \text{ hours} \times \$250/\text{hour}$	\$9,000
<b>Participant Costs</b>		
Reimbursement	$48 \text{ couples} \times 3 \text{ assessments} \times \$50/\text{assessment}$	\$7,200
<b>Materials and Resources</b>		
Assessment Licenses	DASS, DAS, FertiQoL licenses $\times 150 \text{ administrations}$	\$3,500
Data Management	REDCap database + SPSS license	\$2,000
<b>Dissemination</b>		
Conference and Publication	Registration + travel + open access fees	\$4,000
<b>Indirect Costs</b>		
University Overhead	10% of direct costs	\$18,965
<b>Total Project Budget</b>		<b>\$208,614</b>

## BIBLIOGRAPHY

- Beasley, C. C. & R. Ager (2019). "Emotionally Focused Couples Therapy: A Systematic Review Of Its Effectiveness Over The Past 19 Years". In: *Journal Of Evidence-Based Social Work* 16.2, pp. 144–159. DOI: [10.1080/23761407.2018.1563013](https://doi.org/10.1080/23761407.2018.1563013).
- Boivin, J., J. Takefman & A. Braverman (2011). "The Fertility Quality Of Life (FertiQoL) Tool: Development And General Psychometric Properties". In: *Human Reproduction* 26.8, pp. 2084–2091. DOI: [10.1093/humrep/der171](https://doi.org/10.1093/humrep/der171).
- Fraley, R. C., N. G. Waller & K. A. Brennan (2000). "An Item Response Theory Analysis Of Self-Report Measures Of Adult Attachment". In: *Journal Of Personality And Social Psychology* 78.2, pp. 350–365. DOI: [10.1037/0022-3514.78.2.350](https://doi.org/10.1037/0022-3514.78.2.350).
- Gozuyesil, E., S. K. Yikar & E. Nazik (2019). "An Analysis Of The Anxiety And Hopelessness Levels Of Women During IVF-ET Treatment". In: *Perspectives In Psychiatric Care* 55.4, pp. 709–717. DOI: [10.1111/ppc.12436](https://doi.org/10.1111/ppc.12436).
- Horvath, A. O. & L. S. Greenberg (1989). "Development And Validation Of The Working Alliance Inventory". In: *Journal Of Counseling Psychology* 36.2, pp. 223–233. DOI: [10.1037/0022-0167.36.2.223](https://doi.org/10.1037/0022-0167.36.2.223).
- Johnson, S. M. (2019). *Attachment Theory In Practice: Emotionally Focused Therapy (EFT) With Individuals, Couples, And Families*. New York, NY: Guilford Press.
- Lovibond, S. H. & P. F. Jackson (1995). *Depression Anxiety Stress Scales*. 2nd. Sydney, Australia: Psychology Foundation of Australia.
- Mikulincer, M. & P. R. Shaver (2016). *Attachment In Adulthood: Structure, Dynamics, And Change*. 2nd. New York, NY: Guilford Press.
- Sharpley, C. F. & D. G. Cross (1982). "A Confirmatory Analysis of the Dyadic Adjustment Scale". In: *Journal Of Marriage And The Family* 44.3, pp. 739–741. DOI: [10.2307/351593](https://doi.org/10.2307/351593).
- Soltani, M., M. R. Shairi, R. Roshan & C. Rahimi (2014). "The Impact Of Emotionally Focused Therapy On Emotional Distress In Infertile Couples". In: *International Journal Of Fertility And Sterility* 7.4, pp. 337–344.
- Spanier, G. B. (1976). "Measuring Dyadic Adjustment: New Scales For Assessing The Quality Of Marriage And Similar Dyads". In: *Journal Of Marriage And The Family* 38.1, pp. 15–28. DOI: [10.2307/350547](https://doi.org/10.2307/350547).
- Zegers-Hochschild, F., G. D. Adamson, S. Dyer, C. Racowsky, J. de Mouzon, R. Sokol, L. Rienzi, A. Sunde, L. Schmidt, I. D. Cooke, J. L. Simpson & S. van der Poel (2017). "The International Glossary On

Infertility And Fertility Care, 2017". In: *Human Reproduction* 32.9, pp. 1786–1801. doi: 10.1093/humrep/dex234.

