

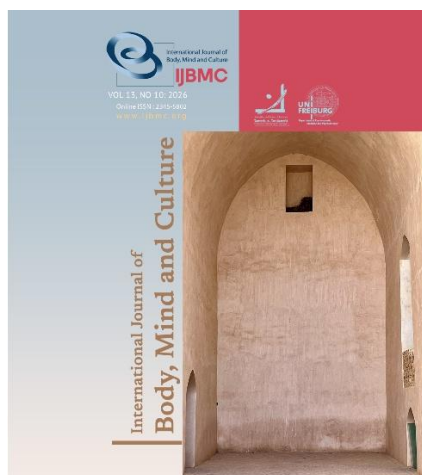
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Comparing the Effectiveness of Existential Therapy and Group-Based Intensive Short-Term Psychodynamic Therapy on Emotional Processing and Guilt Feelings among Infertile Women

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ABSTRACT

Objective: This study aimed to compare the effectiveness of existential therapy and group-based intensive short-term psychodynamic psychotherapy (ISTDP) in improving emotional processing and reducing guilt feelings among infertile women.

Methods and Materials: This quasi-experimental study used a pretest–posttest design with a three-month follow-up and a wait-list control group. The population included infertile women aged 35–40 years attending Milad Infertility Research and Treatment Center in Mashhad, Iran, in 2025. Twenty-four eligible women were selected through voluntary purposive sampling and randomly assigned to existential therapy, group-based ISTDP, or control groups, with eight participants in each group. Both intervention groups received eight weekly 90-minute group sessions, while the control group remained on the wait list. Emotional processing was assessed using the 25-item Emotional Processing Scale, and guilt was measured using the 45-item Guilt Inventory. Data were analyzed using mixed repeated-measures analysis and Bonferroni post hoc tests in SPSS version 26.

Findings: Existential therapy significantly improved emotional processing, $F = 6.212$, $p = .026$, $\eta^2 = .307$, and reduced guilt, $F = 14.122$, $p = .002$, $\eta^2 = .502$. ISTDP also significantly improved emotional processing, $F = 9.799$, $p = .007$, $\eta^2 = .412$, and reduced guilt, $F = 31.858$, $p < .001$, $\eta^2 = .695$. Both interventions differed significantly from the control group, but not from each other in emotional processing ($p = 1.000$) or guilt ($p = .674$). Gains were maintained at follow-up.

Conclusion: Both existential therapy and group-based ISTDP improved emotional processing and reduced guilt among infertile women, with no clear superiority between approaches.

Keywords: Infertility, Existential Therapy, Intensive Short-Term Dynamic Psychotherapy, Emotional Processing, Guilt, Group Psychotherapy.

Introduction

Infertility is a major reproductive-health concern that extends beyond biomedical functioning and can affect emotional well-being, identity, intimate relationships, and a person's sense of future. The World Health Organization has identified infertility as an important public-health issue, and contemporary evidence indicates a substantial psychological burden among women receiving infertility care ([World Health Organization, 2021](#); [Tadesse et al., 2025](#)). Although infertility affects both partners, women often undergo a larger proportion of diagnostic procedures and assisted-reproduction treatments and may be more directly exposed to social expectations surrounding motherhood. As a result, infertility may be experienced not only as a medical condition but also as a challenge to valued roles, self-concept, and relational security ([Assaysh-Öberg et al., 2023](#); [Karakaş et al., 2024](#)). A biopsychosocial orientation likewise supports integrating psychological care with medical treatment when reproductive-health difficulties carry substantial emotional and social consequences ([Seyed Alitabar, 2025](#)).

The emotional consequences of infertility are heterogeneous, but distress frequently involves sadness, anxiety, frustration, shame, guilt, grief, and a sense of inadequacy. Women may interpret difficulties with conception as personal failure, especially in social contexts in which fertility is closely linked with femininity, family continuity, or marital expectations. Repeated medical procedures, uncertain treatment outcomes, and exposure to questions or judgments from relatives and the wider community may further intensify emotional strain. Meta-analytic and qualitative evidence has shown that infertility and unsuccessful reproductive treatment can be associated with considerable emotional distress and may require psychological care alongside medical intervention ([Boivin et al., 2011](#); [Renzi et al., 2023](#); [Warne et al., 2023](#)).

One important psychological process in this context is emotional processing. Emotional processing refers to the mechanisms through which emotional experiences are recognized, experienced, integrated, regulated, and eventually reduced in their disruptive impact. When processing is adaptive, distressing experiences can be assimilated without persistently interfering with later

behavior. In contrast, suppression, avoidance, unregulated affect, and unresolved emotional activation may maintain distress and restrict psychological adjustment ([Rachman, 2001](#); [Baker et al., 2007](#); [Baker et al., 2010](#)). Infertility may tax these processes because it combines loss, uncertainty, repeated anticipation, bodily intervention, and relational concerns. Recent work has emphasized that poor emotional adjustment and maladaptive emotional-processing styles can increase vulnerability among infertile individuals ([Antequera-Jurado et al., 2024](#); [Renzi et al., 2023](#)).

Guilt feelings represent another clinically relevant response. Guilt is a self-conscious moral and interpersonal emotion that arises when individuals evaluate their actions, omissions, or perceived failures negatively. Although guilt can support reparative behavior when proportionate and reality based, excessive or persistent guilt can become maladaptive, especially when a person assumes responsibility for events that are not fully under personal control ([Kugler & Jones, 1992](#); [Graton & Mailliez, 2019](#)). In infertility, guilt may arise from the belief that one has failed to fulfill a desired reproductive or marital role, disappointed a spouse or family, or caused financial and emotional burden through ongoing treatment. These appraisals may be particularly intense when sociocultural expectations assign women primary responsibility for childbearing ([Assaysh-Öberg et al., 2023](#); [Karakaş et al., 2024](#)). Evidence from other clinical populations also indicates that guilt can be responsive to structured psychological treatment, although mechanisms and populations differ from infertility care ([Valian et al., 2025](#)).

The coexistence of emotional-processing difficulties and guilt provides a strong rationale for psychotherapies that address meaning, emotional experience, internal conflict, and self-evaluation. Existential therapy is one such approach. It focuses on core human concerns including meaning, responsibility, freedom, isolation, suffering, and the limits of control. Rather than promising elimination of unavoidable suffering, existential work helps clients develop a more authentic relationship with difficult realities and make personally meaningful choices in response to them ([Arnold-Baker et al., 2024](#); [Van Deurzen, 2014](#)). For women facing infertility, this framework may be relevant because the

condition can challenge assumptions about identity, purpose, control, and the expected course of adult life. By exploring these concerns in a supportive group context, women may become more able to acknowledge painful emotions without excessive avoidance and to reinterpret guilt through a broader understanding of responsibility and uncontrollable life circumstances.

Evidence suggests that existentially oriented interventions can improve emotional and psychological outcomes across populations confronted with illness, loss, and life disruption. Existential interventions have been associated with improvements in emotion regulation, acceptance, and meaning-making, and systematic work has highlighted their potential utility in family and relational contexts (Herlinda et al., 2021; Dukes et al., 2022; Kanwal et al., 2024). The group format may offer additional advantages by reducing isolation and allowing participants to recognize common emotional themes, receive interpersonal feedback, and examine personal assumptions in the presence of others facing comparable challenges.

Intensive short-term psychodynamic psychotherapy (ISTDP) provides a distinct but potentially complementary route to change. Rooted in psychodynamic theory, ISTDP focuses on unconscious emotional conflict, anxiety, and defenses that block direct experience of feelings. The therapist actively helps clients identify defensive patterns, regulate anxiety, and experience previously avoided emotions within the therapeutic relationship (Davanloo, 2001; Thoma & Abbass, 2022). Contemporary psychodynamic research emphasizes emotional clarity, tolerance of affect, and the modification of maladaptive defensive patterns as important mechanisms of change (Melsom et al., 2022; McCarthy et al., 2025). These mechanisms are directly relevant to emotional processing and may also reduce guilt when guilt is maintained by unresolved anger, attachment-related conflict, self-punitive defenses, or distorted assumptions of responsibility.

A group-based ISTDP format may therefore be particularly useful for women with infertility who report complex mixtures of grief, anger, shame, guilt, and relational strain. Through focused attention to bodily anxiety, emotional signals, and defenses, participants may develop a

clearer understanding of previously avoided feelings and the interpersonal patterns associated with them. Research on brief psychodynamic approaches has demonstrated benefits across emotional and mood-related difficulties, while meta-analytic evidence supports the general efficacy of psychodynamic therapy in adult psychopathology (Smith & Hewitt, 2024). Nevertheless, direct comparisons between existential therapy and group-based ISTDP in infertile women remain scarce.

Comparing these two approaches is theoretically informative because both emphasize deep engagement with emotional experience but conceptualize change differently. Existential therapy highlights meaning, freedom, responsibility, acceptance, and authenticity, whereas ISTDP emphasizes unconscious conflict, defense, anxiety regulation, and direct experience of warded-off affect. Both may improve emotional processing and reduce maladaptive guilt, but they may do so through different mechanisms. Determining whether one produces superior outcomes may help clinicians select psychologically appropriate interventions for infertility services. Accordingly, the present study compared the effectiveness of existential therapy and group-based ISTDP on emotional processing and guilt feelings among infertile women and examined whether treatment gains were maintained over a three-month follow-up period.

Methods and Materials

Study Design

The study used an applied, quasi-experimental design with pretest, posttest, and three-month follow-up assessments and a wait-list control condition. Participants were assigned to one of three equal groups: existential therapy, group-based intensive short-term psychodynamic psychotherapy (ISTDP), or control. The two active interventions were delivered over eight weekly sessions, while the control group received no psychological intervention during the study period and remained on a waiting list. The design allowed examination of both immediate treatment effects and maintenance of change over time.

Participants and Setting

The statistical population comprised infertile women aged 35 to 40 years who attended Milad Infertility Research and Treatment Center in Mashhad, Iran, during 2025 (Iranian calendar year 1404). Recruitment was voluntary and purposive. Twenty-four women who met the eligibility criteria were enrolled and then randomly allocated in equal numbers to the existential therapy group ($n = 8$), the ISTDP group ($n = 8$), and the control group ($n = 8$). The small sample reflected the intensive intervention format and the practical constraints of recruiting a clinically homogeneous infertility sample.

Inclusion criteria were willingness to participate, at least lower-secondary education, a specialist-confirmed diagnosis of primary infertility, at least two years of marital life, absence of an acute physical illness based on self-report, and the ability to attend sessions regularly and complete pretest, posttest, and follow-up assessments. Exclusion criteria were absence from more than two treatment sessions, disruptive participation or unusable questionnaire responses, initiation of marital separation, becoming pregnant during the study, substance or alcohol misuse, use of medication without authorization from the infertility specialist, receipt of another psychological intervention during the study, or participation in psychological treatment during the preceding six months.

Instruments

Emotional Processing Scale-25 (EPS-25). Emotional processing was assessed with the 25-item version of the Emotional Processing Scale. The original Emotional Processing Scale was developed by Baker et al. (2007), and the 25-item five-factor version was subsequently refined by Baker et al. (2010). The version used in this study contained five domains: suppression, unpleasant/unprocessed emotional experience, emotional control, avoidance, and signs of

unprocessed emotion. Items were rated on a five-point response format in the Persian scoring procedure used in the source study, producing a total score from 25 to 125; higher total scores were treated as representing more adaptive emotional processing within that scoring convention. The source study cited previous Iranian evidence supporting the reliability of the scale. In the present sample, Cronbach's alpha for the total scale was .76.

Guilt Inventory. Guilt feelings were measured with the 45-item Guilt Inventory developed by Kugler and Jones (1992). The inventory assesses trait guilt (items 1-20), state guilt (items 21-30), and moral standards (items 31-45). Items are rated on a five-point Likert scale, with selected items reverse-scored. Higher total scores indicate greater guilt-related endorsement. The original instrument demonstrated acceptable reliability and construct validity for distinguishing trait guilt, state guilt, and moral standards. In the present study, the total-scale Cronbach's alpha was .72.

Interventions

Both interventions were delivered in a group format across eight weekly sessions of approximately 90 minutes. The existential program was grounded in existential concepts of self-awareness, freedom and responsibility, existential anxiety, isolation, meaning, and acceptance of unavoidable suffering. The ISTDP program followed Davanloo's intensive short-term psychodynamic principles, emphasizing clarification of problems, identification and challenge of defenses, regulation of anxiety, exploration of transference, and direct experiencing of underlying feelings. The existential therapy protocol is summarized in Table 1, and the group-based ISTDP protocol is summarized in Table 2. The session-by-session protocols are presented in Table 1 and Table 2, respectively.

Table 1.*Summary of the Existential Therapy Protocol*

Session	Focus	Core Content
1	Orientation and emotional awareness	Introductions, group goals, discussion of family and marital context, recognition of distressing emotions and anxiety.
2	Self-awareness and existential anxiety	Clarifying self-awareness, existential anxiety, unconscious processes, and restoring a sense of personal agency after difficult life events.
3	Life perspective and loss	Reviewing homework, exploring loss, confronting emptiness, meaning-making, separating current marital experience from past influences, and using a life-line exercise.
4	Loneliness and meaningful connection	Examining existential loneliness, distinguishing isolation from meaningful connection, and practicing more authentic interpersonal engagement.
5	Meaning, freedom, and responsibility	Exploring purposeful action, responsibility, freedom of choice, and perspective taking in marital difficulties.
6	Meaning in suffering	Developing personally meaningful responses to infertility-related suffering, strengthening mutual respect, and examining life goals and reasons for living.
7	Feelings and responsibility	Integrating self-awareness, loneliness, meaning, suffering, and responsibility; exploring hidden meanings in relationships and translating insight into daily marital life.
8	Consolidation and termination	Reviewing core themes, integrating session learning, receiving feedback, planning continued use of skills, and completing posttest measures.

Table 2.*Summary of the Group-Based ISTDP Protocol*

Session	Focus	Core Content
1	Assessment and focus	Clarifying current symptoms and problems, requesting concrete examples, focusing on feelings, and beginning the dynamic sequence according to ego capacity and anxiety tolerance.
2	Defense identification	Examining problems in greater detail, identifying activated defenses, and helping participants recognize defenses as maladaptive rather than ego-syntonic.
3	Challenge and transference	Deepening emotional focus, challenging defenses within tolerance, observing transference resistance, and clarifying the link between defenses and avoided feelings.
4	Pressure toward feeling	Increasing pressure to experience current and transference-related feelings, interpreting defenses, and facilitating access to previously unconscious emotional material.
5	Conflict and emotional experience	Connecting current problems with underlying conflicts, examining newly gained insight, continuing defense clarification, and facilitating genuine emotional experience.
6	Repeated dynamic sequence	Systematic cycles of emotional inquiry, defense identification, defense blocking, affect experiencing, and interpretation according to participants' capacity.
7	Generalization to daily relationships	Applying the dynamic sequence to real-life relational problems, examining recurring patterns, and interpreting links between current conflict and internal emotional themes.
8	Integration and termination	Reviewing emotional insight, defense patterns, conflict themes, interpersonal manifestations, and how to use gained insight after treatment.

Procedure and Ethical Considerations

After approval of the study proposal by the university research authorities and permission from the infertility center, potentially eligible women were contacted through the center and invited to an orientation meeting. The study purpose, procedures, voluntary nature of participation, confidentiality, and the right to withdraw were explained. Women who consented and met the eligibility criteria completed baseline questionnaires and were then randomly assigned to the three groups. The existential therapy sessions were delivered by the researcher, and the ISTDP sessions were delivered by a therapist with relevant competence in the approach. After the eighth session, all three groups

completed posttest measures; the same measures were administered again three months later. The control participants received no intervention during the study period and were offered coordination for psychological services after completion of the research if desired.

Ethical safeguards included voluntary informed consent, freedom to withdraw, privacy and confidentiality, nondisclosure of personal information, avoidance of unnecessary risk, nondiscrimination, and clear instruction regarding questionnaire completion. No formal ethics code was reported in the dissertation source; therefore, no ethics approval number is stated in this manuscript.

Analysis

Data were analyzed using IBM SPSS Statistics version 26. Descriptive statistics included frequencies, percentages, means, and standard deviations. Before hypothesis testing, normality was evaluated with Shapiro-Wilk tests and skewness/kurtosis indices; homogeneity of variances was examined with Levene's test; and homogeneity of variance-covariance matrices was assessed with Box's M. Mauchly's test indicated violation of sphericity for the repeated-measures outcomes, so Greenhouse-Geisser corrections were used. Mixed repeated-measures analyses were conducted to examine time, group, and time-by-group effects. To parallel the source analyses, each active intervention was also contrasted with the control condition, and Bonferroni-adjusted pairwise comparisons were used to compare the

three groups and to evaluate maintenance from posttest to follow-up. Statistical significance was set at $p < .05$.

Findings and Results

Participant Characteristics

As shown in Table 3, all 24 enrolled participants were included in the analyses, with eight women in each study group. Educational level and duration of marriage were broadly comparable across groups. In the ISTDP group, 63% had a high-school diploma or less and 37% had an associate degree or higher; the corresponding proportions were 75% and 25% in the existential group and 63% and 37% in the control group. Half of the ISTDP group had been married for 3-6 years, compared with 37% in each of the existential and control groups.

Table 3.

Demographic Characteristics by Group

Characteristic	ISTDP (n=8)	Existential (n=8)	Control (n=8)
Education: diploma or lower	5 (63%)	6 (75%)	5 (63%)
Education: associate degree or higher	3 (37%)	2 (25%)	3 (37%)
Marriage duration: 3-6 years	4 (50%)	3 (37%)	3 (37%)
Marriage duration: ≥ 7 years	4 (50%)	5 (63%)	5 (63%)

Table 4 summarizes emotional-processing and guilt scores across the three assessment points. Emotional-processing scores increased substantially from pretest to posttest in both treatment groups and remained at similar

levels at three-month follow-up, whereas the control group changed minimally. Guilt scores decreased in both treatment groups and remained lower at follow-up, while the control group remained essentially unchanged.

Table 4.

Means and Standard Deviations for Emotional Processing and Guilt

Outcome	Group	Pretest M $\pm$ SD	Posttest M $\pm$ SD	Follow-up M $\pm$ SD
Emotional processing	ISTDP	33.87 $\pm$ 3.22	42.12 $\pm$ 1.95	42.75 $\pm$ 2.18
	Existential	32.99 $\pm$ 2.23	41.25 $\pm$ 2.71	41.00 $\pm$ 2.61
	Control	34.75 $\pm$ 4.62	34.25 $\pm$ 4.06	34.25 $\pm$ 4.06
Guilt feelings	ISTDP	77.50 $\pm$ 3.33	67.62 $\pm$ 3.50	67.25 $\pm$ 3.15
	Existential	75.00 $\pm$ 4.56	71.50 $\pm$ 3.16	71.25 $\pm$ 3.01
	Control	77.62 $\pm$ 2.32	78.00 $\pm$ 1.85	78.00 $\pm$ 1.85

The Shapiro-Wilk tests were nonsignificant for both outcomes at all assessment points (all $p > .05$), and skewness and kurtosis values were within the ± 2 range. Levene's tests were also nonsignificant across assessment points, and Box's M tests supported homogeneity of variance-covariance matrices. Mauchly's tests were significant for emotional processing and guilt ($p = .001$), indicating that sphericity was violated; therefore, Greenhouse-Geisser-corrected within-subject effects were interpreted.

Compared with the control condition, existential therapy produced a significant between-group effect on emotional processing, $F = 6.212$, $p = .026$, partial eta squared = .307. The treatment group increased from a pretest mean of 32.99 (SD = 2.23) to 41.25 (SD = 2.71) at posttest and 41.00 (SD = 2.61) at follow-up, whereas the control group remained close to baseline. The source analysis also showed a significant time-by-group effect, indicating that the trajectory of change differed between the existential and control groups.

Bonferroni comparisons showed significant pretest-to-posttest and pretest-to-follow-up changes, while the posttest-to-follow-up difference was nonsignificant, supporting maintenance of treatment gains.

Existential therapy also significantly reduced guilt feelings relative to the control group, $F = 14.122$, $p = .002$, partial eta squared = .502. Mean guilt decreased from 75.00 ($SD = 4.56$) at pretest to 71.50 ($SD = 3.16$) at posttest and 71.25 ($SD = 3.01$) at follow-up. The posttest-to-follow-up comparison was nonsignificant, indicating that the reduction was maintained over the three-month period.

ISTDP significantly improved emotional-processing scores compared with the control group, $F = 9.799$, $p = .007$, partial eta squared = .412. The ISTDP group increased from

33.87 ($SD = 3.22$) at pretest to 42.12 ($SD = 1.95$) at posttest and 42.75 ($SD = 2.18$) at follow-up. Bonferroni comparisons indicated significant pretest-to-posttest and pretest-to-follow-up improvements, while the posttest-to-follow-up difference was nonsignificant, demonstrating maintenance of change.

ISTDP produced a significant reduction in guilt feelings, $F = 31.858$, $p < .001$, partial eta squared = .695. Mean guilt declined from 77.50 ($SD = 3.33$) at pretest to 67.62 ($SD = 3.50$) at posttest and 67.25 ($SD = 3.15$) at follow-up. The posttest-to-follow-up difference was nonsignificant, again supporting persistence of the intervention effect. The treatment effects relative to the control group are summarized in Table 5.

Table 5.

Treatment Effects Relative to the Control Group

Comparison	Outcome	F	p	Partial η^2	Interpretation
Existential therapy	Emotional processing	6.212	.026	.307	Significant
Existential therapy	Guilt feelings	14.122	.002	.502	Significant
ISTDP	Emotional processing	9.799	.007	.412	Significant
ISTDP	Guilt feelings	31.858	<.001	.695	Significant

In the three-group mixed repeated-measures model for emotional processing, the group effect was significant, $F = 6.637$, $p = .006$, partial eta squared = .387, and the time-by-group interaction was also significant, $F = 40.051$, $p < .001$. Bonferroni comparisons showed that ISTDP differed significantly from control (mean difference = 5.167, $p = .008$) and existential therapy differed significantly from control (mean difference = 4.292, $p = .030$). However, ISTDP and existential therapy did not differ from one another (mean difference = 0.875, $p = 1.000$). Thus, both interventions improved emotional processing, but neither was statistically superior.

Table 6.

Bonferroni Pairwise Comparisons between Groups

Outcome	Group Comparison	Mean Difference	p	Interpretation
Emotional processing	ISTDP vs Existential	0.875	1.000	Not significant
Emotional processing	ISTDP vs Control	5.167	.008	Significant
Emotional processing	Existential vs Control	4.292	.030	Significant
Guilt feelings	ISTDP vs Existential	-1.792	.674	Not significant
Guilt feelings	ISTDP vs Control	-7.083	<.001	Significant
Guilt feelings	Existential vs Control	-5.292	.004	Significant

For guilt feelings, the three-group analysis also demonstrated a significant group effect, $F = 13.221$, $p < .001$, partial eta squared = .557, with a significant time-by-group interaction, $F = 38.068$, $p < .001$. Bonferroni comparisons showed lower guilt in ISTDP than control (mean difference = -7.083, $p < .001$) and lower guilt in existential therapy than control (mean difference = -5.292, $p = .004$). The difference between ISTDP and existential therapy was not statistically significant (mean difference = -1.792, $p = .674$). Therefore, the two interventions were statistically comparable in their effects on guilt. The Bonferroni pairwise comparisons are presented in Table 6.

Across the full sample, pretest-to-posttest and pretest-to-follow-up changes were significant for both outcomes, whereas posttest-to-follow-up differences were nonsignificant (emotional processing, $p = 1.000$; guilt, $p = .970$). This pattern indicates that the improvements achieved during treatment were generally maintained during the three-month follow-up interval.

Discussion and Conclusion

The present study compared existential therapy and group-based ISTDP for emotional processing and guilt feelings among infertile women. Both interventions produced significant changes relative to the wait-list control group, and improvements were maintained at three-month follow-up. Existential therapy showed moderate-to-large effects on emotional processing and guilt, while ISTDP showed large effects on both outcomes, particularly guilt. However, direct Bonferroni comparisons between the two active treatments were nonsignificant for both emotional processing and guilt. Thus, the central finding is not the superiority of one approach but the apparent usefulness of two theoretically different therapies for addressing emotionally complex aspects of infertility.

The improvement in emotional processing following existential therapy is consistent with the approach's emphasis on awareness, acceptance, authenticity, and engagement with unavoidable aspects of human experience. Infertility confronts women with uncertainty and limits to personal control, and attempts to avoid or suppress the associated grief, anger, fear, and disappointment can prolong emotional disruption. Existential therapy does not define all distress as pathological; instead, it encourages individuals to approach difficult feelings as meaningful responses to their situation and to choose how they will live in relation to those feelings. This orientation may reduce avoidance and facilitate a more coherent processing of emotional experience (Arnold-Baker et al., 2024; Van Deurzen, 2014).

The group context may have strengthened this process. Infertility can create isolation because women may avoid social settings, feel different from peers, or be reluctant to

discuss emotionally painful experiences. Group existential work permits participants to witness that others struggle with similar concerns about loss, responsibility, identity, and meaning. This interpersonal normalization may reduce defensive withdrawal and provide a context in which difficult emotions can be named and explored. Previous research has shown that existential interventions can improve emotion regulation and psychological adjustment in populations facing significant life challenges (Herlinda et al., 2021; Kanwal et al., 2024).

Existential therapy also reduced guilt feelings. This finding can be understood through the distinction between responsibility and omnipotent self-blame. Women with infertility may assume excessive responsibility for a condition that is medically and relationally complex. Existential therapy explicitly addresses responsibility, but it does so within the boundaries of real freedom and real limitation. A client can be helped to distinguish what can be chosen from what cannot be controlled. This distinction may weaken unrealistic beliefs such as 'I have failed my spouse' or 'I am responsible for the family's suffering' while preserving constructive responsibility for current choices, communication, and self-care. Such a reframing may transform guilt from a global condemnation of the self into a more proportionate and meaningful emotional signal.

The effects of ISTDP on emotional processing are also theoretically coherent. ISTDP directly targets defenses that prevent the experiencing and integration of affect. In women undergoing infertility treatment, emotions such as anger, grief, envy, fear, tenderness, and guilt may coexist and may be difficult to tolerate openly. Defensive processes such as intellectualization, emotional suppression, avoidance, or self-attack can reduce conscious contact with these feelings while maintaining physiological and psychological distress. ISTDP attempts to identify these defenses in real time, regulate anxiety, and facilitate direct experience of underlying affect. Contemporary psychodynamic research has identified emotional clarity and tolerance of distress as plausible mechanisms through which short-term dynamic psychotherapy produces change (Melsom et al., 2022; Thoma & Abbass, 2022).

The particularly large effect of ISTDP on guilt is compatible with the psychodynamic conceptualization of guilt as sometimes arising from unconscious conflict and self-punitive defenses. Davanloo's model gives special attention to mixed feelings in attachment relationships, especially the coexistence of love, anger, grief, and guilt. When anger toward an important person is defended against, guilt and self-punishment may intensify. In the context of infertility, anger can be directed toward the body, spouse, medical system, family, or even imagined social expectations, while the woman may judge the anger as unacceptable and turn it against herself. By helping clients experience and integrate these mixed feelings rather than defending against them, ISTDP may reduce maladaptive guilt and self-attack (Davanloo, 2001; Pollack, 2024).

Despite somewhat larger numerical effect sizes for ISTDP, the active treatments did not differ statistically. Several explanations are possible. First, both approaches create intensive opportunities for emotional self-observation, verbalization, interpersonal feedback, and reconsideration of habitual responses. Second, both challenge avoidance, although they conceptualize it differently: existential therapy frames avoidance as movement away from authentic engagement with life, whereas ISTDP frames it as defensive exclusion of anxiety-provoking affect. Third, both interventions encourage a more integrated sense of self in relation to difficult emotions. These shared therapeutic functions may explain why the interventions were similarly effective for the two outcomes considered here.

The absence of a significant difference should not be interpreted as evidence that the therapies are identical. Their clinical emphasis differs substantially. Existential therapy may be especially suitable when infertility has generated questions about identity, purpose, freedom, meaning, isolation, and the anticipated life course. ISTDP may be particularly useful when emotional difficulties are organized around strong defenses, somatic anxiety, self-punitive patterns, unresolved attachment conflict, or difficulty directly experiencing feelings. Treatment selection may therefore depend on case formulation, therapist

competence, patient preference, and the dominant psychological mechanisms rather than on a general expectation that one approach is universally superior.

The maintenance of gains at three-month follow-up is clinically encouraging. Infertility often involves continuing medical decisions and recurrent uncertainty, so short-lived improvement would have limited practical value. The nonsignificant posttest-to-follow-up changes suggest that participants retained much of the benefit after the structured sessions ended. For existential therapy, this may reflect continued use of meaning-oriented reflection and acceptance of limits. For ISTDP, it may reflect increased awareness of defenses and a greater capacity to identify and experience emotion without immediately resorting to maladaptive avoidance.

These findings support integrating psychological care into infertility treatment. Medical services often focus appropriately on reproductive assessment and intervention, but emotional processes can influence quality of life, treatment burden, couple functioning, and willingness to persist with care. Group interventions are particularly relevant in settings where specialist mental-health resources are limited because they can reach several patients simultaneously and can reduce the sense of isolation associated with infertility. The present findings suggest that either an existential or a short-term dynamic group program may be considered when emotional-processing difficulties and guilt are prominent clinical concerns.

Clinical Implications

Infertility clinics may benefit from routine screening for emotional-processing difficulties and disproportionate guilt, particularly in women facing repeated treatment, strong social expectations, or persistent self-blame. Clinicians trained in existential therapy may focus on meaning, responsibility, freedom within limits, authenticity, and acceptance of uncontrollable aspects of infertility. Clinicians trained in ISTDP may focus on anxiety regulation, defense identification, self-punitive patterns, and direct experiencing of avoided feelings. Because neither intervention was clearly superior, treatment choice can be

individualized according to formulation, patient preference, and available therapist expertise. More broadly, intervention research in women facing serious health conditions also supports targeting distress tolerance and adaptive emotional functioning as clinically relevant adjunctive goals (Seyed Alitabar & Zadhasn, 2023).

Limitations and Future Directions

The findings should be interpreted in light of several limitations. The sample was small ($n = 24$), was recruited from a single infertility center in Mashhad, and consisted only of women aged 35-40 years, limiting generalizability. Recruitment was purposive and voluntary even though allocation to groups was random. Outcomes relied on self-report measures, and the three-month follow-up was relatively short. The study did not include an active psychological control condition, so nonspecific therapeutic factors such as attention, group support, and expectancy cannot be separated from approach-specific effects. In addition, the Persian emotional-processing scoring procedure reported in the source study differs from the standard 0-9 scoring commonly described for the original EPS-25; future replications should explicitly document the validated local scoring key and establish measurement equivalence. Finally, infertility type, duration, treatment history, and partner involvement could be controlled more rigorously in larger trials.

Future research should use adequately powered randomized controlled designs across multiple infertility centers, include longer follow-up periods, and stratify participants by infertility characteristics and treatment stage. Including spouses or couple-level outcomes may clarify whether improvements in emotional processing and guilt translate into better dyadic adjustment. Mechanism-focused studies could also test whether changes in experiential avoidance, meaning in life, defensive functioning, emotional clarity, or anxiety tolerance mediate the effects of existential therapy and ISTDP.

Existential therapy and group-based intensive short-term psychodynamic psychotherapy were both effective in improving emotional-processing scores and reducing guilt

feelings among infertile women, with benefits maintained over a three-month follow-up period. Although ISTDP produced numerically larger effect sizes, direct comparisons between the two active treatments were not statistically significant. The findings therefore support both approaches as potentially valuable psychological adjuncts to infertility care. Existential therapy may help women engage more authentically with suffering, responsibility, and meaning, whereas ISTDP may improve access to and integration of avoided emotions by addressing anxiety and defenses. Integrating such interventions into reproductive-health services may provide a more comprehensive response to the emotional burden of infertility.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Ethical considerations in this study were that participation was entirely optional.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contribute to this study.

References

- Antequera-Jurado, R., Moreno-Rosset, C., & Ramírez-Uclés, I. (2024). The specific psychosocial modulator factors of emotional adjustment in infertile individuals compared to fertile people. *Current Psychology*, 43, 1943–1951. <https://doi.org/10.1007/s12144-023-04436-0>
- Arnold-Baker, C., Wharne, S., Hakim Dowek, N., Gibson, N., Molle, J., & van Deurzen, E. (2024). *Existential therapy: Responses to frequently asked questions*. Routledge. <https://doi.org/10.4324/9781003355700>
- Assaysh-Öberg, S., Borneskog, C., & Ternström, E. (2023). Women's experience of infertility and treatment: A silent grief and failed care and support. *Sexual & Reproductive Healthcare*, 37, 100879. <https://doi.org/10.1016/j.srhc.2023.100879>
- Baker, R., Thomas, S., Thomas, P. W., & Owens, M. (2007). Development of an emotional processing scale. *Journal of Psychosomatic Research*, 62(2), 167–178. <https://doi.org/10.1016/j.jpsychores.2006.09.005>
- Baker, R., Thomas, S., Thomas, P. W., Gower, P., Santonastaso, M., & Whittlesea, A. (2010). The Emotional Processing Scale: Scale refinement and abridgement (EPS-25). *Journal of Psychosomatic Research*, 68(1), 83–88. <https://doi.org/10.1016/j.jpsychores.2009.07.007>
- Balogh, L., Tanaka, M., Török, N., Vécsei, L., & Taguchi, S. (2021). Crosstalk between existential phenomenological psychotherapy and neurological sciences in mood and anxiety disorders. *Biomedicine*, 9(4), 340. <https://doi.org/10.3390/biomedicine9040340>
- Boivin, J., Griffiths, E., & Venetis, C. A. (2011). Emotional distress in infertile women and failure of assisted reproductive technologies: Meta-analysis of prospective psychosocial studies. *BMJ*, 342, d223. <https://doi.org/10.1136/bmj.d223>
- Davanloo, H. (2001). Intensive short-term dynamic psychotherapy: Extended major direct access to the unconscious. *European Psychotherapy*, 2, 25–70. <https://eupehs.org/wp-content/uploads/EP-2001-Davanloo-ISTDP.pdf>
- Dukes, A. T., Gutierrez, D., & Goshorn, J. R. (2022). Logotherapy infused family therapy (LIFT): A systematic review of clinical interventions for family counselors. *The Journal of Humanistic Counseling*, 61(1), 18–29. <https://doi.org/10.1002/johc.12168>
- Graton, A., & Mailliez, M. (2019). A theory of guilt appeals: A review showing the importance of investigating cognitive processes as mediators between emotion and behavior. *Behavioral Sciences*, 9(12), 117. <https://doi.org/10.3390/bs9120117>
- Herlinda, F., Aulia, D. A., & Damayanthi, W. (2021). The implementation of existential therapy in improving emotion regulation on the beneficiaries at Panti Sosial Karya Wanita Mulya Jaya of East Jakarta. *European Journal of Psychological Research*, 8(3), 17–24. <https://www.idpublications.org/wp-content/uploads/2021/07/Full-Paper-THE-IMPLEMENTATION-OF-EXISTENTIAL-THERAPY-IN-IMPROVING-EMOTION-REGULATION-ON-THE-BENEFICIARIES.pdf>
- Kanwal, F., Majeed, A., Younis, H., & Aslam, A. (2024). Existential issues and coping: A qualitative study of breast cancer women. *Qlantic Journal of Social Sciences and Humanities*, 5(2), 46–57. <https://doi.org/10.55737/qjssh.537119380>
- Karakaş, S., Akarsu, R. H., Tandoğan, Ö., & Şahan, Ö. (2024). “The biggest disappointment”: Women's expectations from sex are ignored, from the perspective of infertile women. *Journal of Reproductive and Infant Psychology*, 42(5), 842–854. <https://doi.org/10.1080/02646838.2023.2243296>
- Kugler, K., & Jones, W. H. (1992). On conceptualizing and assessing guilt. *Journal of Personality and Social Psychology*, 62(2), 318–327. <https://doi.org/10.1037/0022-3514.62.2.318>
- McCarthy, K., Capone, C., & Leibovich, L. (2025). *The evidence for psychodynamic psychotherapy: A contemporary introduction*. Routledge. <https://doi.org/10.4324/9781003323167>
- Melsom, L., Ulvenes, P. G., Solbakken, O. A., Curran, P. J., & Wampold, B. E. (2022). Emotional clarity and tolerance of emotional distress as mechanisms of change in short-term psychodynamic psychotherapy for chronic depression. *Journal of Consulting and Clinical Psychology*, 90(4), 289–302. <https://doi.org/10.1037/ccp0000728>
- Pascual-Leone, A. (2018). How clients “change emotion with emotion”: A programme of research on emotional processing. *Psychotherapy Research*, 28(2), 165–182. <https://doi.org/10.1080/10503307.2017.1349350>
- Pollack, D. L. (2024). Maternal ambivalence in session: Helping mothers face mixed feelings toward their children with intensive short-term dynamic psychotherapy. *Women & Therapy*, 47(1), 58–88. <https://doi.org/10.1080/02703149.2021.1978051>
- Rachman, S. (2001). Emotional processing, with special reference to post-traumatic stress disorder. *International Review of Psychiatry*, 13(3), 164–171. <https://doi.org/10.1080/09540260120074028>
- Renzi, A., Mariani, R., Fedele, F., Maniaci, V. G., Petrovska, E., D'Amelio, R., Mazzoni, G., & Di Trani, M. (2023). Women's narratives on infertility as a traumatic event: An exploration of emotional processing through the Referential Activity Linguistic Program. *Healthcare*, 11(22), 2919. <https://doi.org/10.3390/healthcare11222919>
- Seyed Alitabar, S. H. (2025). The biopsychosocial model in modern healthcare: Overcoming barriers to holistic patient care. *International Journal of Body, Mind and Culture*, 12(2), 1–4. <https://doi.org/10.61838/ijbmc.v12i2.950>
- Seyed Alitabar, S. H., & Zadhassn, Z. (2023). Effectiveness of mindfulness-based cognitive therapy on mental pain, distress tolerance and psychological hardness in breast cancer patients. *Health Nexus*, 1(1), 56–63. <https://doi.org/10.61838/kman.hn.1.1.9>
- Smith, M. M., & Hewitt, P. L. (2024). The equivalence of psychodynamic therapy and cognitive behavioral therapy for depressive disorders in adults: A meta-analytic review. *Journal of Clinical Psychology*, 80(5), 945–967. <https://doi.org/10.1002/jclp.23649>
- Tadesse, S., Kumsa, H., Kitil, G. W., Chereka, A. A., Gedefaw, G., Chane, F., & Mislue, E. (2025). Prevalence and contributing factors of depression among women with infertility in low-resource settings: A systematic review and meta-analysis. *Frontiers in Medicine*, 12, 1477483. <https://doi.org/10.3389/fmed.2025.1477483>
- Thoma, N. C., & Abbass, A. (2022). Intensive short-term dynamic psychotherapy (ISTDP) offers unique procedures for acceptance of emotion and may contribute to the process-based therapy movement. *Journal of Contextual Behavioral Science*, 25, 106–114. <https://doi.org/10.1016/j.jcbs.2022.07.003>
- Valian, S., Akbari, H., & Mirani, A. (2025). The effectiveness of mindfulness-based cognitive therapy on subjective pain and

- guilt in individuals with a history of suicide. *International Journal of Body, Mind and Culture*, 12(1), 38–43.
<https://doi.org/10.61838/ijbmc.v12i1.661>
- van Deurzen, E. (2014). Existential therapy. In W. Dryden & A. Reeves (Eds.), *The handbook of individual therapy* (6th ed., pp. 155–178). SAGE. <https://www.sagepub.com/shop/buy-a-book/the-handbook-of-individual-therapy-6-236714>
- Warne, E., Oxlad, M., & Best, T. (2023). Evaluating group psychological interventions for mental health in women with infertility undertaking fertility treatment: A systematic review and meta-analysis. *Health Psychology Review*, 17(3), 377–401.
<https://doi.org/10.1080/17437199.2022.2058582>
- World Health Organization. (2021). WHO fact sheet on infertility. *Global Reproductive Health*, 6(1), e52.
<https://doi.org/10.1097/GRH.000000000000052>