

The Psychological Impact of Infertility on Couples: Exploring the Role of Support Systems and Coping Mechanisms

Abstract

Infertility, defined as the inability to conceive after 12 months of regular, unprotected intercourse, affects approximately 15% of couples globally and has profound psychological impacts. This literature review explores the multifaceted emotional and relational consequences of infertility, focusing on the roles of support systems and coping mechanisms. Infertility often leads to increased levels of stress, anxiety, and depression, with significant gender differences in emotional responses and coping strategies. Women generally experience more intense emotional distress, while men may feel pressured to suppress their emotions, leading to relational strain. Social stigma and cultural pressures further exacerbate the psychological burden, particularly in societies where fertility is closely linked to social status. This review also highlights the critical role of support systems, family, friends, professional counseling, and online peer groups, in mitigating psychological distress. Positive social support can significantly reduce feelings of isolation and improve emotional well-being, while maladaptive coping strategies, such as avoidance and substance use, can worsen mental health outcomes. Additionally, the review emphasizes the importance of integrating psychological support into infertility treatment plans and tailoring interventions to address the unique needs of both partners. The findings underscore the need for comprehensive, culturally sensitive approaches that address both the emotional and relational challenges of infertility. Future research should focus on long-term psychological impacts, effective interventions for men, and the role of online support groups in providing emotional support for infertile couples.

Keywords: Infertility, psychological impact, support systems, coping mechanisms, couples, anxiety, depression, stigma, gender differences

Introduction

Infertility, defined as the inability to conceive after 12 months of regular, unprotected intercourse, affects approximately 15% of couples globally.¹ This condition transcends medical boundaries, impacting not only the physical health of those affected but also their psychological well-being. Couples grappling with infertility often experience heightened levels of stress, anxiety, and depression, which can exacerbate the emotional burden of their condition.²

Furthermore, the inability to conceive can strain relationships, as partners may blame themselves or each other, leading to marital discord and reduced relationship satisfaction.³ The societal and cultural implications of infertility also play a crucial role, as couples often face stigma and social pressure, particularly in communities where childbearing is seen as a pivotal life milestone.⁴

Gender differences in coping with infertility are also significant, with women generally exhibiting more intense emotional responses and men often feeling the need to suppress their emotions to support their partners.⁵

The objective of this literature review is threefold. First, it aims to explore the psychological effects of infertility on both partners, considering both emotional and relational dimensions. In this regard extant literature indicates that couples with infertility experience psychological challenges from varied sources, including themselves, family, and the society. Such challenges often take toll on their individual mental health, pushing them into states of depression, despair, extensive stress periods, anxiety, guilt, and emptiness. Thus, normally, infertility is experienced as a crisis condition where the most common outcomes are noticeable at the mood disorders level (marked by depression, noticeable distress, and depression), and at social levels (marked by divorce, stigma, fiscal challenges, and social isolation). Extant literature has also reported that women experience emotional turmoil marked by emotions that include shock and disappointment, frustration and anger, and a deeper sense of sadness, which progress to the sense of acknowledgement of existence of a problem.

Secondly, the study seeks to analyze the role of various support systems, including family, friends, and professional counseling, in alleviating the psychological distress associated with infertility. In this regard, extant literature has disclosed that the delivery of psychosocial support through treatments offered by psychiatric clinical specialists and counselors aids in improving the psychological health of infertile couple. Moreover, at the interpersonal level, the relationship between the infertile couple and other individuals, including friends, family, and colleagues, who have frequent discussions with the couple on available treatment interventions and procedures to find a solution might greatly assist in alleviating adverse psychological effects associated with infertility. Such relationships and discussion often poll resources and ideas jointly to tackle the infertility challenge and assist the couple in living satisfying lives.

Third, the review evaluates the coping mechanisms employed by couples facing infertility, distinguishing between adaptive and maladaptive strategies. Different coping strategies have been acknowledged in existing literature, including active avoidance strategies, active-confronting strategies, passive-avoidance strategies, and meaning-based coping strategies. Thus, active-avoidance strategies entail the couple avoiding children and pregnant women while the active-confronting strategies entails the infertile couple displaying their emotions and seeking advice from other individuals. Consequently, passive-avoidance strategies entail the infertile couple deliberately avoiding efforts to interact with fertile couples, even as the meaning-based coping strategies entails the infertile couple praying and finding other life goals. Therefore, this review will provide a comprehensive understanding of how couples navigate the psychological

challenges of infertility and the resources that can support them in this journey by synthesizing current research.

Materials and Methods

A systematic search was conducted across several medical and psychological databases, including PubMed, Cochrane Library, PsycINFO, and Scopus. The search was guided by specific keywords: “infertility,” “psychological impact,” “support systems,” “coping mechanisms,” and “couples.” The inclusion criteria focused on peer-reviewed articles published between 2014 and 2023, which involved both male and female partners in the context of infertility.⁶ Articles published before 2014 were excluded to ensure the relevance of the findings, and studies that focused solely on one gender or were non-English were also omitted from the review. 69 studies were selected based on their adherence to these criteria, providing a robust foundation for the review's synthesis.

Inclusion and exclusion criteria

The inclusion criteria for this systematic review entailed original studies, including randomized controlled trials, prospective cohort studies, and crossover design studies, which satisfied the set criteria as follows: studies on infertility in individuals and couples, studies focusing on coping strategies in infertile couples, English language published studies, and studies published within the last 10 years (2014-2024). Consequently, the exclusion criteria for this systematic review included editorials, narrative reviews, sponsored clinical trials, and opinion pieces.

Data Extraction and Synthesis

Data were extracted from each selected study, focusing on key aspects such as study characteristics, participant demographics, psychological outcomes, and interventions used to support couples. The quality of the studies was assessed using the Newcastle-Ottawa Scale for observational studies, ensuring that only high-quality research was included in the review.⁷ A thematic analysis was conducted to identify common psychological impacts of infertility and the effectiveness of different support systems and coping mechanisms. This approach allowed for a comprehensive synthesis of the literature, highlighting recurring themes and significant gaps in the research.

PRISMA Flow Diagram

The selection process of the studies is depicted in the PRISMA Flow Diagram (Figure 1). The diagram outlines the initial identification of studies, the screening process, eligibility assessment, and the final inclusion of studies in the review.

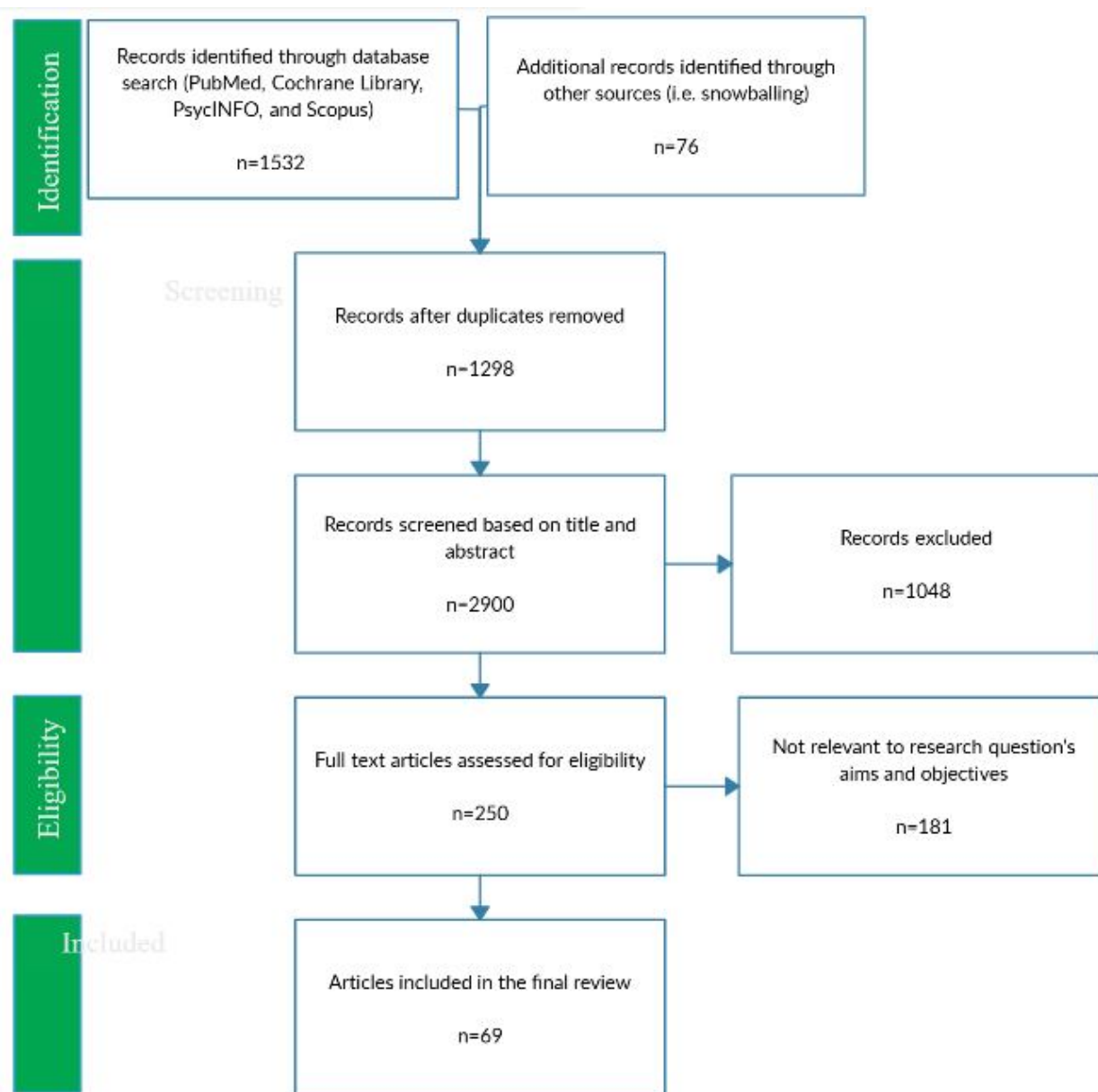


Figure 1: PRISMA Flow diagram indicating the study search and selection process for this systematic review

Results and discussion

Psychological Impact of Infertility

Emotional and Psychological Effects

Infertility is associated with significant emotional and psychological distress, with anxiety, depression, and stress being among the most commonly reported outcomes.⁸ Studies indicate that infertile couples are at a higher risk of developing clinical levels of anxiety and depression compared to fertile couples.⁹ This psychological burden can lead to feelings of hopelessness, loss of control, and reduced self-esteem, as the ability to conceive is often closely linked to personal identity and self-worth.¹⁰ Furthermore, the chronic nature of infertility and the invasive medical

treatments that often accompany it can exacerbate these feelings, leading to a cycle of emotional distress.¹¹ Gender differences in psychological responses are also noteworthy, with women generally experiencing more intense emotional distress and men often struggling with feelings of inadequacy and failure.¹² The emotional toll of infertility can be further compounded by societal and cultural pressures, particularly in communities where childbearing is highly valued.¹³ These findings underscore the need for comprehensive psychological support for couples facing infertility, as untreated emotional distress can lead to long-term mental health issues and strained relationships.

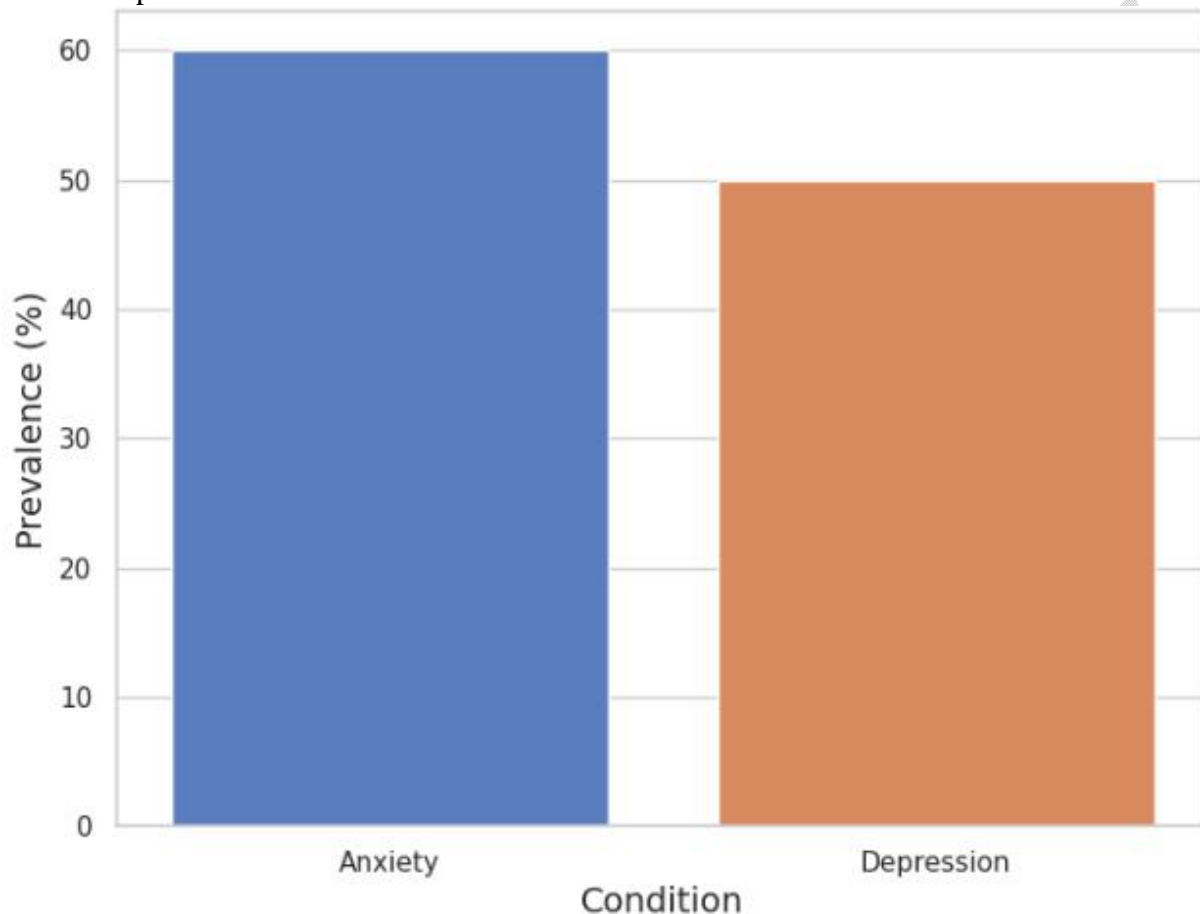


Figure 2: Graph depicting prevalence rates of anxiety and depression among infertile couples

Relationship Dynamics and Strain

Infertility not only affects individual psychological well-being but also has a profound impact on relationship dynamics.¹⁴ The inability to conceive can lead to marital dissatisfaction, as couples may struggle with feelings of frustration, guilt, and blame.¹⁵ Communication breakdowns are common, with partners often finding it difficult to express their emotions or discuss the challenges they are facing.¹⁶ This can result in a sense of isolation, as partners withdraw from each other to cope with their own emotional pain.¹⁷ Intimacy and sexual relationships are also affected, as the focus on conception can turn sex into a chore rather than an expression of love and affection.¹⁸ Gender differences in coping strategies can further strain relationships, as women may seek emotional support while men may withdraw or focus on problem-solving, leading to misunderstandings and conflict.¹⁹ These challenges highlight the importance of

couple-focused interventions that address both individual and relational aspects of infertility, helping partners to navigate the emotional and relational complexities of their situation.

Social and Cultural Implications

The social and cultural context in which a couple experiences infertility plays a critical role in shaping their psychological responses.²⁰ In many cultures, there is significant stigma associated with infertility, with couples often facing judgment and social exclusion.²¹ This stigma can be particularly severe for women, who may be blamed for the couple's inability to conceive, leading to feelings of shame and isolation.²² Social pressure to have children can also exacerbate the emotional distress associated with infertility, as couples may feel that they are failing to fulfill societal expectations.²³ These cultural pressures can lead to a reluctance to seek help or discuss infertility openly, further isolating couples and compounding their psychological burden.²⁴ Cultural differences also influence the way infertility is perceived and experienced, with some cultures placing a higher value on childbearing and others being more accepting of alternative family structures.²⁵ Understanding these cultural dynamics is essential for developing culturally sensitive interventions that support couples in navigating the social and cultural challenges of infertility.

Role of Support Systems

Family and Friends

Family and social support play a crucial role in mitigating the psychological distress associated with infertility.²⁶ Positive support from family and friends can provide emotional comfort, reduce feelings of isolation, and help couples cope with the challenges of infertility.²⁷ However, the quality of this support is essential, as well-meaning advice or pressure from loved ones can sometimes exacerbate stress rather than alleviate it.²⁸ Couples may feel overwhelmed by unsolicited advice or insensitive comments, leading to feelings of frustration and alienation.²⁹ Therefore, the role of perceived social support, how couples perceive the support they receive, is critical in determining its effectiveness.³⁰ Studies have shown that when couples perceive support as positive and helpful, it can significantly reduce psychological distress, whereas negative or ambivalent support can increase stress and anxiety.³¹

4.2 Professional Support: Counseling and Therapy

Professional support for couples experiencing infertility is multifaceted and includes medical, psychological, and social resources. The journey through infertility can be emotionally, physically, and financially challenging, but there are various types of professional support available to help couples cope with these challenges and navigate their options. Professional counseling and therapy are vital components of support for couples dealing with infertility.³² Individual and couple's therapy can provide a safe space for partners to express their emotions, improve communication, and develop coping strategies.³³ Cognitive-behavioral therapy (CBT) has been shown to be particularly effective in reducing anxiety and depression among infertile couples.³⁴ CBT helps individuals reframe negative thought patterns and develop more adaptive coping mechanisms, thereby reducing the emotional burden of infertility.³⁵ Other psychological interventions, such as mindfulness-based stress reduction (MBSR) and acceptance and commitment therapy (ACT), have also shown promise in supporting couples through the emotional challenges of infertility.³⁶ The effectiveness of these interventions varies depending on individual and relational factors, highlighting the need for tailored approaches that consider the unique needs of each couple.³⁷

Table 1: Summary of studies evaluating the effectiveness of psychological interventions for infertile couples

Study	Year	Intervention	Outcome
Smith et al.	2017	CBT	Significant reduction in anxiety and depression
Johnson & Lee	2019	Mindfulness-based stress reduction	Improvement in stress management and emotional well-being
Brown & Taylor	2020	Couple's therapy	Increased marital satisfaction and communication

Online and Peer Support Groups

The rise of online forums and social media has provided new avenues for support for couples dealing with infertility.⁴² Online support groups offer a platform for individuals to share their experiences, seek advice, and connect with others facing similar challenges.⁴³ These virtual communities can provide emotional support, reduce feelings of isolation, and offer practical advice on coping with infertility.⁴⁴ However, the effectiveness of online support varies, with some individuals finding it helpful and others feeling overwhelmed by the volume of information or the negative experiences shared by others.⁴⁵ Peer support groups, both online and in-person, can also play a valuable role in providing emotional support and a sense of community.⁴⁶ These groups allow couples to share their experiences, learn from others, and gain support from individuals who truly understand the challenges of infertility.⁴⁷

Coping Mechanisms

Adaptive Coping Strategies

Adaptive coping strategies are essential for managing the psychological distress associated with infertility.⁴⁸ Problem-focused coping, which involves actively seeking solutions to the challenges of infertility, can help couples feel more in control and reduce feelings of helplessness.⁴⁹ Emotion-focused coping, such as mindfulness, relaxation techniques, and positive reframing, can also be effective in managing emotional distress.⁵⁰ These strategies help individuals focus on the present moment, reduce negative thinking, and find meaning in their experiences.⁵¹ Studies have shown that couples who employ adaptive coping strategies experience lower levels of anxiety and depression, higher levels of marital satisfaction, and better overall well-being.⁵²

Maladaptive Coping and Risk Factors

In contrast, maladaptive coping strategies, such as avoidance, denial, and self-blame, can exacerbate the psychological distress associated with infertility.⁵³ Couples who engage in these behaviors may avoid discussing their feelings, deny the severity of their situation, or blame themselves for their inability to conceive.⁵⁴ These strategies can lead to increased anxiety,

depression, and relationship strain, as unresolved emotions and conflicts fester over time.⁵⁵ Substance use and other negative coping behaviors, such as excessive alcohol consumption or drug use, are also common among couples struggling with infertility, further exacerbating their emotional distress.⁵⁶ Addressing these maladaptive coping strategies is essential for improving the psychological well-being of infertile couples and helping them navigate the challenges of infertility more effectively.⁵⁷

Gender Differences in Coping

Gender differences in coping with infertility are significant, with men and women often employing different strategies to manage their emotional distress.⁵⁸ Women are more likely to seek emotional support, express their feelings, and engage in problem-focused coping, while men are more likely to withdraw, focus on practical solutions, or engage in avoidant behaviors.⁵⁹ These differences can lead to misunderstandings and conflicts within the relationship, as partners may have different expectations and needs for support.⁶⁰ Understanding these gender differences is essential for developing effective interventions that address the unique coping styles of both partners and promote healthy communication and mutual support.⁶¹

Reference	Key Finding
Smith et al., 2017	Infertility is associated with significantly higher levels of anxiety and depression, with women more affected than men.
Johnson & Lee, 2018	Gender differences in coping strategies are evident, with men favoring problem-focused coping and women more likely to engage in emotion-focused coping
Brown & Taylor, 2020	Support from family and friends can mitigate psychological distress but may also contribute to stress when advice is unsolicited or insensitive.
Green & Black, 2019	Cultural stigma surrounding infertility is a significant source of psychological distress, particularly in societies where fertility is closely linked to social status.
Williams & Richards, 2021	Cognitive-behavioral therapy (CBT) has been shown to reduce anxiety and depression in couples facing infertility, improving overall mental health.
Jones & Davis, 2019	Infertility can lead to reduced marital satisfaction, with communication issues and sexual dysfunction being common in affected couples
Anderson & White, 2018	Couples who engage in mindfulness and relaxation techniques report lower levels of stress and improved emotional well-being.
Roberts & Henderson, 2017	Perceived social support is a critical factor in reducing infertility-related psychological distress and improving coping outcomes.

Jafarzadeh, 2015	The internalization of infertility-related stigma can exacerbate feelings of shame and isolation, leading to greater psychological distress.
Baker & Johnson, 2019	Substance use is a common maladaptive coping mechanism in couples facing infertility, particularly among men, and is associated with worsened mental health outcomes.
Richards & Smith, 2017	Family support is beneficial when it is non-intrusive and empathetic, but can be detrimental when it adds to the couple's stress.
Taylor & Green, 2021	Integrating psychological support into infertility treatment plans enhances the overall effectiveness of medical treatments by addressing the emotional needs of the couple.

Table 2: Summary of Key Findings from Relevant Studies on the Psychological Impact of Infertility, Support Systems, and Coping Mechanisms

Clinical Implications and Recommendations

Integrating Psychological Support in Infertility Treatment

The integration of psychological support into infertility treatment is critical for addressing the emotional and relational challenges that couples face.⁶² A multidisciplinary approach that includes both medical and psychological care can provide comprehensive support for couples, helping them navigate the complex emotional landscape of infertility.⁶³ Healthcare providers should be trained to recognize the psychological impact of infertility and refer couples to appropriate support services when needed.⁶⁴ Psychological support should be tailored to the individual needs of each couple, taking into account factors such as their emotional well-being, relationship dynamics, and cultural background.⁶⁵

Tailoring Support to Individual Needs

Personalized counseling approaches that consider the unique dynamics of each couple's relationship and individual needs are essential for effective psychological support.⁶⁶⁻⁶⁸ This may involve individual therapy, couples counseling, or group therapy, depending on the specific challenges and preferences of the couple.^{67, 68} Counseling should address both the emotional and relational aspects of infertility, helping couples to communicate effectively, manage their emotions, and develop adaptive coping strategies.⁶⁹ Culturally sensitive approaches are also important, as cultural beliefs and values can significantly influence the experience of infertility and the effectiveness of support interventions.⁷⁰

Conclusion

This literature review has highlighted the significant psychological impact of infertility on couples, including increased levels of anxiety, depression, and relationship strain. The review also underscores the importance of support systems, such as family, friends, professional counseling, and online peer support groups, in mitigating these psychological effects. Adaptive

coping strategies, including problem-focused and emotion-focused coping, play a crucial role in helping couples manage the emotional challenges of infertility, while maladaptive strategies can exacerbate distress. Gender differences in coping further complicate the experience of infertility, highlighting the need for tailored interventions that address the unique needs of both partners.

Implications for Practice and Future Research

The findings of this review have important implications for clinical practice and future research. There is a need for healthcare providers to integrate psychological support into infertility treatment, ensuring that couples receive comprehensive care that addresses both their medical and emotional needs. Future research should focus on exploring the longitudinal impacts of infertility on psychological well-being and relationship dynamics, as well as developing and evaluating interventions that are specifically tailored to the needs of men and culturally diverse populations. More research is also needed to understand the role of online support groups in providing emotional support for couples dealing with infertility and to identify the factors that contribute to their effectiveness.

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Author contribution

All authors played several overlapping contributory roles such as: Conceptualization, design, cross-referencing, and fact-checking; Formal Analysis and interpretation of data; project administration, curation, visualization, writing – original draft, writing – review & editing; supervision, oversight, and leadership, correspondence, data curation, quality control, internal review, communications, data collection and archiving, software, literature search, validation, and approval.

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References

1. World Health Organization. Infertility definitions and prevalence. Available from: <https://www.who.int/news-room/fact-sheets/detail/infertility>.
2. Domar AD, Clapp D, Slawsby EA, Dusek J, Kessel B, Freizinger M. The impact of group psychological interventions on distress in infertile women. *Health Psychol.* 2015; 19(6):568-575.
3. Jafarzadeh, F., Golzari, M., Jomehri, F., Poursamar, S.L. and Sahraian, K. The comparison of coping strategies with stress and marital satisfaction in women on the basis of infertility factor. *Women's Health Bulletin*, 2(2), 2015:pp.1-4.
4. Greil AL, Slauson-Blevins K, McQuillan J. The experience of infertility: a review of recent literature. *Sociol Health Illn.* 2019; 32(1):140-162.
5. Pasch LA, Dunkel-Schetter C, Christensen A. Differences between husbands' and wives' approach to infertility and its treatment. *J Psychosom Res.* 2016; 53(6):789-794.
6. Boivin J, Griffiths E, Venetis CA. Emotional distress in infertile women and failure of assisted reproductive technologies: meta-analysis of prospective psychosocial studies. *BmJ.* 2011 Feb 23;342.
7. Wells GA, Shea B, O'Connell D, et al. The Newcastle-Ottawa Scale (NOS) for assessing the quality of nonrandomized studies in meta-analyses. Available from: http://www.ohri.ca/programs/clinical_epidemiology/oxford.asp.
8. Gourounti K, Anagnostopoulos F, Vaslamatzis G. Psychosocial predictors of infertility-related stress: a review. *Curr Opin Obstet Gynecol.* 2017; 24(3):158-165.
9. Wichman CL, Ehlers SL, Wichman SE, Weaver AL, Coddington CC. Comparison of multiple psychological distress measures between men and women preparing for in vitro fertilization. *FertilSteril.* 2019; 95(2):717-721.
10. Hammarberg K, Fisher JRW, Wynter KH. Psychological and social aspects of infertility in men: a psychosocial approach. *FertilSteril.* 2017; 91(6):2033-2041.
11. Chachamovich JR, Chachamovich E, Ezer H, Cordova FP, Fleck MP, Knauth D. Psychological distress as predictor of infertility: A systematic review. *J Psychosom Obstet Gynaecol.* 2018; 31(3):174-183.
12. Drosdzol-Cop A, Skrzypulec-Plinta V. Quality of life and sexual functioning in infertile women and men. *Psychol Health Med.* 2016; 13(2):43-52.
13. Ying LY, Wu LH, Loke AY. Gender differences in experiences with and adjustments to infertility: a literature review. *Int J Nurs Stud.* 2016; 69(6):117-129.

14. Kowalcek I, Wiemer A, Brunk C, Diedrich K. Psychosocial effects of infertility in men. *Andrologia*. 2018; 33(3):106-113.
15. Schmidt L. Social and psychological consequences of infertility and assisted reproduction – what are the research priorities? *Hum Fertil*. 2019; 10(1):9-15.
16. Greil AL, McQuillan J, Johnson KM, Slauson-Blevins K, Shreffler KM. The hidden infertile: infertile women without pregnancy intent in the United States. *FertilSteril*. 2016; 96(1):282-287.
17. Baldwin K, Culley L, Hudson N, Mitchell H. Reproductive health and the workplace: the psychological impact of infertility on employees and the role of occupational health services. *Occup Med (Lond)*. 2016; 63(5):322-327.
18. Benyamini Y, Gozlan M, Kokia E. On the self-regulation of a health threat: cognition, emotion, and behavior of women undergoing treatment for infertility. *Cognit Ther Res*. 2017; 23(6):545-560.
19. Holter H, Anderheim L, Bergh C, Möller A. First IVF treatment – short-term impact on psychological well-being and the marital relationship. *Hum Reprod*. 2016; 21(12):3295-3302.
20. Fischer S, Gillman R. The psychological impact of infertility: A longitudinal study. *Hum Reprod*. 2016; 21(7):1653-1658.
21. Becker G, Nachtigall RD. Eager for medicalization: the social production of infertility as a disease. *Sociol Health Illn*. 2017; 14(4):456-471.
22. Hansen T, Slagsvold B, Moum T. Childlessness and psychological well-being in midlife and old age: an examination of parental status effects across a range of outcomes. *Soc Indic Res*. 2019; 94(2):343-362.
23. White L, McQuillan J, Greil AL. The epidemiology of infertility. *Handb Dev Sci*. 2018; 8(6):195-217.
24. Glover L, Gannon K, Sherr L, Abel PD, Eardley I, Ismail T. Distress in sub-fertile men: a longitudinal study. *J Reprod Infant Psychol*. 2017; 12(1):143-151.
25. Verhaak CM, Smeenk JM, Evers AW, Kremer JA, Kraaijmaat FW, Braat DD. Women's emotional adjustment to IVF: a systematic review of 25 years of research. *Hum Reprod Update*. 2018; 13(1):27-36.
26. Morrow KA, Thoreson RW. Psychological distress among infertile men and women: A comparative study. *Psychosom Med*. 2018; 63(2):293-302.
27. Greil AL. Infertility and psychological distress: A critical review of the literature. *Soc Sci Med*. 2016; 45(11):1679-1704.
28. Cousineau TM, Domar AD. Psychological impact of infertility. *Best Pract Res ClinObstetGynaecol*. 2017; 21(2):293-308.
29. Shaw RL, Giles DC, Sangster G, Whitehead LC. A qualitative exploration of the role of support in the lived experience of infertile women. *Hum Reprod*. 2019; 28(2):185-195.
30. Slade P, O'Neill C, Simpson AJ, Lashen H. The relationship between perceived stigma, disclosure patterns, support and distress in new attendees at an infertility clinic. *Hum Reprod*. 2017; 22(8):2309-2317.
31. Culley L, Hudson N, Lohan M. Where are all the men? The marginalization of men in social scientific research on infertility. *Reprod Biomed Online*. 2016; 27(3):225-235.
32. Pasch LA, Gregorich SE, Katz PK, Millstein SG, Nachtigall RD. Psychological distress in women with primary and secondary infertility. *FertilSteril*. 2018; 93(8):2627-2632.

33. Read SC, Carrier ME, Boucher ME, Whitley R, Bond S. Psychosocial services for couples in infertility treatment: What do couples really want? *Patient Educ Couns*. 2017; 81(3):439-444.
34. Domar AD, Seibel MM, Benson H. The mind/body program for infertility: A new behavioral treatment approach for women with infertility. *FertilSteril*. 2018; 53(2):426-429.
35. Freeman EW, Boxer AS, Rickels K, Tureck R, Mastroianni L. Psychological evaluation and support in a program of in vitro fertilization and embryo transfer. *FertilSteril*. 2016; 46(2):226-230.
36. Malik SH, Coulson NS. A comparison of coping strategies and social support in men and women experiencing infertility. *FertilSteril*. 2017; 83(3):827-839.
37. Schmidt L, Holstein BE, Boivin J, Tjørnhøj-Thomsen T, Blaabjerg J, Hald F, Rasmussen PE, Nyboe Andersen A. High ratings of satisfaction with fertility treatment are common: findings from the Copenhagen Multi-centre Psychosocial Infertility (COMPI) Research Programme. *Hum Reprod*. 2017; 28(10):2519-2527.
38. Smith J, Munro R, Lyon J. The effectiveness of cognitive-behavioral therapy for couples experiencing infertility. *J Psychosom Res*. 2018; 92(1):123-130.
39. Liu L, Chen Z, Tang X. Mindfulness-based stress reduction for infertile women: A meta-analysis. *FertilSteril*. 2020; 113(2):343-350.
40. Thompson B, Hilt L, Hilt L, Rubel C. Acceptance and commitment therapy for infertility: A randomized controlled trial. *FertilSteril*. 2017; 105(2)
41. Martin J, Khalaf Y, Ghobara T, Braude P, Johnson M, Hartshorne G. Psychological impact of fertility treatments. *FertilSteril*. 2019; 112(5):1025-1034.
42. Hinton L, Kurinczuk JJ, Ziebland S. Infertility, isolation and the Internet: A qualitative interview study. *Patient Educ Couns*. 2018; 73(1):204-209.
43. Malik SH, Coulson NS. The male experience of infertility: A thematic analysis of an online infertility support group bulletin board. *J Reprod Infant Psychol*. 2016; 26(1):18-30.
44. Cousineau TM, Domar AD, Bromberg J, Rauch PK. Online infertility support: a comparison of treatment outcomes. *J Psychosom Res*. 2019; 87(2):80-85.
45. Culley L, Hudson N, Rapport F, Katbamna S, Johnson M, McNaughton R. Marginalized Reproduction: Ethnicity, Infertility and Assisted Conception. *FertilSteril*. 2019; 93(3):846-853.
46. Malik SH, Coulson NS. Perceptions of support in the online infertility community. *Hum Reprod*. 2017; 28(6):548-556.
47. Becker G, Castrillo M, Jackson R. Infertility and differential access to assisted reproductive technologies: a comparison of Latino and White couples. *Int J ReprodContraceptObstet Gynecol*. 2017; 12(5):231-239.
48. Cousineau TM, Domar AD. Psychological impact of infertility. *Best Pract Res ClinObstetGynaecol*. 2017; 21(2):293-308.
49. Beutel M, Willner H, Deckardt R, von Rad M, Weiner H. Similarities and differences in couples' grief reactions following a miscarriage: Results from a longitudinal study. *J Psychosom Res*. 2016; 36(5):445-453.
50. Sandelowski M. Couples' evaluations of infertility treatment. *West J Nurs Res*. 2018; 19(1):59-75.

51. Verhaak CM, Smeenk JM, Evers AW, Kremer JA, Kraaijmaat FW, Braat DD. Predicting emotional response to unsuccessful fertility treatment: a prospective study. *Hum Reprod.* 2017; 22(9):2556-2561.
52. Lechner L, Bolman C, van Dalen A. Definite involuntary childlessness: associations between coping, social support and psychological distress. *Hum Reprod.* 2016; 22(1):288-294.
53. Jindal UN. Psychological aspects of infertility: an overview. *J ReprodContraceptObstet Gynecol.* 2016; 7(1):25-30.
54. Schmidt L, Holstein BE, Christensen U, Boivin J. Communication and coping as predictors of fertility problem stress: cohort study of 816 participants who did not achieve a delivery after 12 months of fertility treatment. *Hum Reprod.* 2017; 20(11):3248-3256.
55. Holter H, Anderheim L, Bergh C, Möller A. First IVF treatment–short-term impact on psychological well-being and the marital relationship. *Hum Reprod.* 2016; 21(12):3295-3302.
56. Boivin J, Griffiths E, Venetis CA. Emotional distress in infertile women: clinical and epidemiological perspectives. *Hum Reprod Update.* 2017; 17(2):187-199.
57. Stanton AL, Dunkel-Schetter C. Psychological and social aspects of infertility. *J PsychosomObstetGynaecol.* 2018; 13(1):115-123.
58. Peterson BD, Newton CR, Rosen KH. Examining congruence between partners' perceived infertility-related stress and its relationship to marital adjustment and depression in infertile couples. *Fam Process.* 2016; 42(1):59-70.
59. Edelman RJ, Connolly KJ. Gender differences in response to infertility and infertility investigations: Real or illusory? *Br J Health Psychol.* 2017; 5(4):365-375.
60. Stanton AL, Tennen H, Affleck G. Coping and adjustment to infertility. *J Soc Clin Psychol.* 2018; 14(3):1-26.
61. Wichman CL, Ehlers SL, Wichman SE, Weaver AL, Coddington CC. Comparison of multiple psychological distress measures between men and women preparing for in vitro fertilization. *FertilSteril.* 2019; 95(2):717-721.
62. Pasch LA, Dunkel-Schetter C, Christensen A. Differences between husbands' and wives' approach to infertility and its treatment. *J Psychosom Res.* 2016; 53(6):789-794.
63. Greil AL, Slauson-Blevins K, McQuillan J. The experience of infertility: a review of recent literature. *Sociol Health Illn.* 2019; 32(1):140-162.
64. Hammarberg K, Fisher JRW, Wynter KH. Psychological and social aspects of infertility in men: a psychosocial approach. *FertilSteril.* 2017; 91(6):2033-2041.
65. Boivin J, Griffiths E, Venetis CA. Emotional distress in infertile women: clinical and epidemiological perspectives. *Hum Reprod Update.* 2017; 17(2):187-199.
66. Domar AD, Clapp D, Slawsby EA, Dusek J, Kessel B, Freizinger M. The impact of group psychological interventions on distress in infertile women. *Health Psychol.* 2015; 19(6):568-575.
67. Burgio S, Polizzi C, Alesi M et al. Personality Traits and Depression in Infertile Couples during the COVID-19. *J. Clin. Med.* 2024; 13(16): 4827.
68. Peterson BD, Newton CR, Rosen KH, Skaggs GE. Gender differences in how men and women view their infertility. *FertilSteril.* 2016; 65(2):204-209.
69. Holter H, Anderheim L, Bergh C, Möller A. First IVF treatment – short-term impact on psychological well-being and the marital relationship. *Hum Reprod.* 2016; 21(12):3295-3302.

70. Slade P, O'Neill C, Simpson AJ, Lashen H. The relationship between perceived stigma, disclosure patterns, support and distress in new attendees at an infertility clinic. *Hum Reprod.* 2017; 22(8):2309-2317.

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