

Psychological Intervention for Anorexia Nervosa: A Scoping Review of Cognitive Behavioral Therapy and Family-Based Treatment

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ABSTRAK

Anoreksia nervosa adalah gangguan psikologis kompleks yang ditandai dengan perilaku makan yang sangat membatasi asupan, ketakutan yang hebat akan kenaikan berat badan, dan persepsi tubuh yang terdistorsi. Penelitian ini menggunakan desain tinjauan cakupan (scoping review) kualitatif yang berpedoman pada kerangka kerja PRISMA-ScR. Literatur dikumpulkan dari berbagai basis data akademik, termasuk PubMed, Scopus, PsycINFO, ScienceDirect, dan Google Scholar. Setelah melalui proses penyaringan dan penilaian kelayakan, delapan studi disertakan dalam tinjauan akhir dan dianalisis secara tematis. Temuan menunjukkan bahwa CBT dan FBT sama-sama memberikan kontribusi positif terhadap penanganan anoreksia nervosa, meskipun keduanya memiliki perbedaan dalam landasan teoretis dan fokus intervensi. CBT terutama menangani kognisi maladaptif, disregulasi emosi, dan pola perilaku disfungsional, sedangkan FBT berfokus pada pemulihan perilaku dan pelibatan keluarga, khususnya pada remaja.

Kata kunci: *Anoreksia nervosa, terapi perilaku kognitif, perawatan berbasis keluarga, perawatan psikologis, regulasi emosi*

ABSTRACT

Anorexia Nervosa is a complex psychological disorder characterised by restrictive eating behaviours, intense fear of weight gain, and distorted body image. This study employed a qualitative scoping review design guided by the PRISMA-ScR framework. Literature was collected from several academic databases, including PubMed, Scopus, PsycINFO, ScienceDirect, and Google Scholar. Following the screening and eligibility process, eight studies were included in the final review and analysed thematically. The findings indicate that both CBT and FBT contribute positively to anorexia nervosa treatment, although they differ in theoretical foundations and treatment focus. CBT primarily addresses maladaptive cognitions, emotional dysregulation, and dysfunctional behavioural patterns, whereas FBT focuses on behavioural restoration and family involvement, particularly among adolescents.

Keywords: *Anorexia Nervosa, cognitive behavioural therapy, family-based treatment, psychological treatment, emotional regulation*

INTRODUCTION

Anorexia Nervosa is a severe psychiatric disorder characterized by persistent restriction of energy intake, intense fear of gaining weight, and a distorted body image. According to the American Psychiatric Association, anorexia nervosa is associated with significant physical, psychological, and social impairments.

A disorder that affects individuals across diverse populations and cultural contexts. Global epidemiological studies estimate that the lifetime prevalence of anorexia nervosa ranges from approximately 0.3% to 1% among females, with lower rates reported among males, although prevalence may vary depending on diagnostic criteria and population studies (Smink et al., 2012). More recent nationally representative data using DSM-5 criteria report a lifetime prevalence of approximately 0.8% among adults (Tetyana Udo & Carlos M. Grilo, 2018). It is also recognized as one of the mental disorders with the highest mortality rates, due to both medical complications and increased risk of suicide (Arcelus et al., 2011).

From a cognitive perspective, Cognitive Behavioral Therapy (CBT) proposes that dysfunctional beliefs about weight, shape, and self-worth contribute to restrictive behaviours, which are reinforced through perceived control and reduction of anxiety. These processes create a self-perpetuating cycle that maintains the disorder over time.

In addition to cognitive factors, emotional and behavioural mechanisms also play a significant role in the development and persistence of anorexia nervosa. Individuals may engage in restrictive eating as a coping strategy to manage distress or to maintain a sense of control. Emerging research further highlights the role of cognitive rigidity, habitual behaviours, and avoidance patterns in sustaining the disorder, emphasising the complexity of its psychological underpinnings.

Psychological interventions therefore play a central role in the treatment of anorexia nervosa. A range of therapeutic approaches have been developed, including Family-Based Treatment (FBT), which is considered a first-line treatment for adolescents, and cognitive-behavioural approaches such as enhanced CBT (CBT-E), which aim to modify maladaptive thoughts and behaviours. Other emerging interventions, including acceptance-based therapies and habit-focused treatments, have also been explored in recent years (Muratore & Attia, 2021).

However, despite the availability of multiple psychological treatments, no single intervention has been consistently identified as superior, particularly among adult populations. Many individuals continue to experience persistent symptoms or relapse following treatment, indicating limitations in current therapeutic approaches (Muratore & Attia, 2021). Furthermore, the existing literature is highly heterogeneous, with variations in intervention types, populations, and outcome measures, making it difficult to form a comprehensive understanding of psychological treatment effectiveness.

Given the complexity and fragmentation of the current evidence base, there is a need to systematically map the literature to better understand the range and impact of nutritional interventions on recovery outcomes in anorexia nervosa. A scoping review guided by PRISMA-ScR is therefore appropriate, as it enables the identification of key concepts, types of evidence, and gaps in the existing research (Tricco et al., 2018). By focusing on psychological perspectives, this study aims to contribute to a more comprehensive understanding of treatment approaches and inform future research and clinical practice.

METHOD

Research Design

This study employed a qualitative research design using a scoping review approach to examine psychological interventions for Anorexia Nervosa, particularly Cognitive Behavioral Therapy (CBT) and Family-Based Treatment (FBT). This approach was considered appropriate for the present study, which seeks to explore and compare psychological treatment approaches used in anorexia nervosa. Followed by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) guidelines provides a structured framework for conducting and reporting scoping reviews systematically and transparently. The framework includes stages related to literature identification, screening, eligibility assessment, data extraction, and synthesis of findings.

Unit of Analysis

The unit of analysis in this study consisted of published scientific literature discussing psychological interventions for Anorexia Nervosa, particularly Cognitive Behavioral Therapy (CBT) and Family-Based Treatment (FBT). The analysed literature included empirical studies, systematic reviews, meta-analyses, and theoretical articles related to the treatment and psychological mechanisms of anorexia nervosa. The primary focus of analysis was the psychological aspects of the interventions, including theoretical foundations, treatment mechanisms, therapeutic approaches, effectiveness, and limitations of CBT and FBT.

Apparatus and Procedure

The literature was obtained from several academic databases, including PubMed, Scopus, ScienceDirect, PsycINFO, and Google Scholar. These databases were selected because they contain extensive peer-reviewed literature related to psychology, psychiatry, and mental health research. To ensure relevance and quality, the study applied inclusion and exclusion criteria during the article selection process. The article selection process followed the PRISMA-ScR framework, involving stages of identification, screening, eligibility assessment, and inclusion.

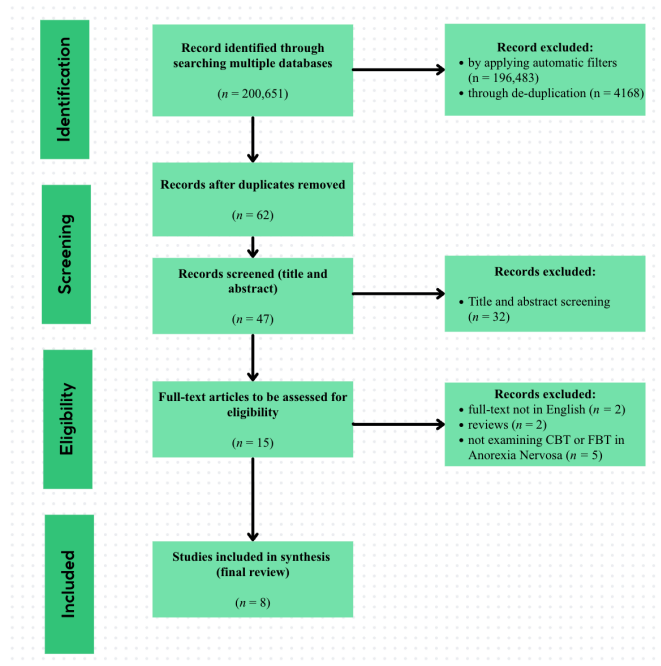
The literature search was conducted systematically using combinations of keywords and Boolean operators. The primary keywords used in the search process included: “*anorexia nervosa*”, “*cognitive behavioural therapy*”, “*CBT*”, “*CBT-E*”, “*family-based treatment*”, “*FBT*”, “*psychological intervention*”, “*eating disorder treatment*”, and “*psychological approaches*”. Boolean operators such as **AND** and **OR** were used to broaden or narrow the search results.

Data Analysis

The analysis process was conducted through thematic categorisation. Studies were reviewed and synthesised to identify recurring themes and patterns related to psychological approaches to anorexia nervosa. The main themes identified in this study included cognitive mechanisms, behavioural mechanisms, emotional regulation, interpersonal and family factors, treatment effectiveness, and limitations of CBT and FBT approaches. In addition, comparative analysis was conducted to examine similarities and differences between the two interventions. The findings from the analysis were then synthesised narratively to provide a comprehensive understanding of psychological treatment approaches for anorexia nervosa.

RESULTS

From more than 20,000 initial records identified through database searching, records were substantially reduced through filtering and screening procedures. After duplicate removal and title-abstract screening, 15-full text articles were assessed for eligibility, and 8 studies met all inclusion criteria for the final review and synthesis. The complete study selection process is presented in the PRISMA-ScR flow diagram below.



*Figure 1.1 PRISMA-ScR Flow Diagram
(Source: Personal work, 2026)*

The 8 studies demonstrated that both CBT and FBT contribute significantly to the treatment of anorexia nervosa, although each intervention targets different psychological and behavioral mechanisms. CBT primarily focuses on modifying maladaptive cognitions, perfectionism, emotional regulation difficulties, and dysfunctional behavioral patterns, whereas FBT emphasises behavioral restoration through parental involvement and family support. The selected studies also identified limitations within both approaches. A summary of the selected studies included in this review is presented in the table below.

Table 1.1*Summary of Selected Studies*

Author(s)	Study Focus	Intervention	Main Findings	Relevance to the Review
Fairburn et al. (2003)	Cognitive behavioral model of eating disorders	CBT	CBT targets maladaptive cognitions and behaviors maintaining anorexia nervosa	Provides the theoretical foundation for understanding CBT mechanisms in anorexia nervosa treatment
Lock et al. (2010)	Comparison of FBT and individual therapy	FBT	FBT improved weight restoration and remission in adolescents	Supports the effectiveness of family involvement in adolescent anorexia nervosa treatment
Couturier et al. (2013)	Meta-analysis of family-based treatments	FBT	Family involvement contributed positively to treatment outcomes	Strengthens evidence regarding the effectiveness of FBT interventions
Galsworthy-Francis (2014)	Systematic review of CBT for anorexia nervosa	CBT	CBT improved eating disorder symptoms and psychopathology	Demonstrates the role of CBT in addressing cognitive and emotional mechanisms

Author(s)	Study Focus	Intervention	Main Findings	Relevance to the Review
Hurst & Zimmer-Gembeck (2019)	Combined FBT and CBT intervention	CBT + FBT	Integrated approaches improved perfectionism and eating disorder symptoms	Highlights the potential benefits of combining CBT and FBT approaches
Harrison et al. (2010)	Emotional regulation in eating disorders	CBT-related mechanisms	Emotional dysregulation contributes to maintenance of anorexia nervosa	Supports the importance of emotional regulation in psychological treatment approaches
Oldershaw et al. (2011)	Socio-emotional processing in anorexia nervosa	Psychological mechanisms	Emotional and interpersonal difficulties maintain eating disorder symptoms	Explains the interpersonal and emotional factors underlying anorexia nervosa
Fisher et al. (2010)	Review of family therapy for anorexia nervosa	FBT	Family therapy demonstrated positive effects in adolescent treatment	Supports the use of FBT as an effective intervention for adolescents with anorexia nervosa

DISCUSSION

The review identified CBT and FBT as the principal psychological approaches used to treat anorexia nervosa, thereby addressing the first and second objectives of this study. Across the included studies, CBT was consistently described as targeting maladaptive cognitions, perfectionism, rigid thinking patterns, emotional dysregulation, and dysfunctional behavioural patterns that contribute to the maintenance of anorexia nervosa (Fairburn et al., 2003; Harrison et al., 2010; Galsworthy-Francis, 2014). These findings support cognitive-behavioural theory, which proposes that distorted beliefs regarding body weight, shape, and self-worth reinforce restrictive eating behaviours. In contrast, FBT emphasised behavioural restoration through active parental involvement and family support, particularly among adolescents. Studies included in this review consistently reported positive outcomes related to weight restoration, remission, and long-term recovery following

family-based interventions (Lock et al., 2010; Couturier et al., 2013; Fisher et al., 2010), supporting the family systems perspective that views anorexia nervosa within a broader interpersonal context.

The scoping review also addressed the third and fourth objectives by examining treatment outcomes and the application of psychological interventions across different populations and clinical settings. Across the reviewed literature, intervention effectiveness was evaluated using cognitive, emotional, behavioural, and physical outcomes rather than weight restoration alone. Improvements in maladaptive beliefs, emotional regulation, psychological functioning, eating behaviours, and remission rates were consistently reported. Harrison et al. (2010) and Oldershaw et al. (2011) further highlighted the importance of emotional regulation and interpersonal functioning, suggesting that recovery requires more than behavioural change. The review also demonstrated differences in intervention delivery across populations, with FBT being predominantly implemented among adolescents in outpatient and family-centred settings, whereas CBT was more commonly applied to older adolescents and adults through individual therapy. These findings suggest that treatment selection should consider developmental stage, family involvement, and individual psychological needs.

An important finding emerging from this scoping review is the increasing recognition that anorexia nervosa is maintained through the interaction of cognitive, behavioural, emotional, and interpersonal mechanisms. This supports the conceptual framework presented in Chapter II and highlights the need for multidimensional treatment approaches. Several studies suggested that integrating CBT and FBT may better address the complexity of anorexia nervosa than either approach alone. For example, Hurst and Zimmer-Gembeck (2019) demonstrated that incorporating CBT techniques targeting perfectionism alongside family-based interventions resulted in improvements in both behavioural and cognitive outcomes. These findings indicate that combining cognitive restructuring with family involvement may provide a more comprehensive approach to treatment by addressing multiple maintaining mechanisms simultaneously.

The review also fulfilled the final objective by identifying several important gaps within the current evidence base. Most studies focused primarily on adolescent populations, resulting in comparatively limited evidence regarding adults with anorexia nervosa. In addition, many studies involved relatively small sample sizes, varied outcome measures, and limited long-term follow-up, making comparisons across interventions difficult. Although integrated treatment approaches show promising results, relatively few studies have examined their effectiveness. These findings suggest that future research should include more diverse populations, standardised outcome measures, and longitudinal designs to strengthen the evidence base for psychological interventions.

Overall, the findings of this scoping review demonstrate that CBT and FBT remain the primary evidence-based psychological interventions for anorexia nervosa, although each addresses different aspects of the disorder. CBT appears particularly effective in modifying cognitive distortions and emotional processes, whereas FBT provides significant benefits through behavioural restoration and family involvement. Collectively, the findings indicate that anorexia nervosa is best understood as a multifactorial disorder requiring interventions that address cognitive, behavioural, emotional, and interpersonal factors. By systematically mapping the existing literature, this review provides a comprehensive overview of

current psychological approaches and identifies important directions for future research and clinical practice.

CONCLUSION

The findings demonstrate that CBT primarily targets maladaptive cognitions, emotional regulation difficulties, and dysfunctional behaviours, whereas FBT focuses on behavioural restoration through family involvement and parental support. Together, these interventions address different psychological mechanisms that contribute to the development and maintenance of anorexia nervosa.

Overall, this scoping review achieved its objective of mapping and synthesising the existing literature on psychological approaches to anorexia nervosa. The review demonstrates that CBT and FBT remain the primary evidence-based psychological interventions, each offering distinct but complementary contributions to treatment. At the same time, the findings highlight the need for further research involving diverse populations, long-term treatment outcomes, and integrated psychological approaches to strengthen the evidence base and support the development of more comprehensive and individualised interventions for anorexia nervosa.

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DECLARATION OF POTENTIAL CONFLICTS OF INTEREST

“Shabrina Daru Azzahra Darmawan and Atika Dian Ariana declare that they do not work for, consult for, own shares in, or receive funding from any company or organization that could benefit from the publication of this article.”

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