

Evidence-Based Individual Psychology Practice: Adlerian Pattern Focused Therapy

Kanıtı Dayalı Bireysel Psikoloji Uygulaması: Örüntü Odaklı Adleryan Terapi

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ABSTRACT

Adlerian Pattern-Focused Therapy is an evidence-based practice based on Individual Psychology. This paper explores the therapy's definition, historical development, the specific processes involved in the therapeutic sessions, and how case conceptualization is approached. Central to this therapy is its goal to transform maladaptive behavioral and cognitive patterns into healthier, adaptive ones. The structured approach encompasses a series of 10 sessions, focusing primarily on the strategy of pattern replacement. Tools like the Patient Health Questionnaire-9, Outcome Rating Scale, and Session Rating Scale play a pivotal role in these counseling sessions, providing measurable outcomes and feedback. While Adlerian Pattern-Focused Therapy has gained notable traction in contemporary mental health discourse, its widespread adoption remains limited within Türkiye. Nevertheless, its evidence-based foundation and pragmatic application render it a promising avenue for enhancing mental health services, not only in Türkiye but also across global contexts. By providing information about this therapy, this study may contribute to its implementation and execution within the scope of mental health services.

Keywords: Evidence-based practice, Adlerian pattern-focused therapy, Adlerian therapy

ÖZ

Bireysel Psikolojiye dayanan Örüntü Odaklı Adleryan Terapi, ruh sağlığı tedavisinde kanıtı dayalı bir yaklaşımı temsil etmektedir. Bu makale, terapinin tanımını, tarihsel gelişimini, terapötik seanslarda yer alan belirli süreçleri ve vaka kavramsallaştırmasının nasıl ele alındığını incelemektedir. Bu terapinin merkezinde, uyumsuz davranışsal ve bilişsel örüntüleri daha sağlıklı, uyumlu olanlara dönüştürme hedefi yer almaktadır. Yapılandırılmış yaklaşım, öncelikle örüntü değiştirme stratejisine odaklanan 10 seanslık bir süreci kapsar. Hasta Sağlık Anketi-9, Sonuç Değerlendirme Ölçeği ve Oturum Değerlendirme Ölçeği gibi araçlar, bu danışmanlık seanslarında önemli bir rol oynayarak ölçülebilir sonuçlar ve geri bildirim sağlar. Örüntü Odaklı Adleryan Terapi, ruh sağlığı alanında önemli bir etki yaratmaya başlamış olsa da Türkiye'deki yaygınlığı henüz artmaktadır. Terapinin sağlam kanıtlara dayanması ve pratik uygulanabilirliği, onu sadece Türkiye'de değil, tüm dünyada ruh sağlığı hizmetlerinin iyileştirilmesi için değerli bir yöntem haline getirmektedir. Bu çalışma, Örüntü Odaklı Adleryan Terapi'ye ışık tutarak, dünya çapında ruh sağlığı hizmetlerinde daha geniş çapta uygulanmasına ve etkili bir şekilde kullanılmasına yardımcı olmayı amaçlamaktadır.

Anahtar sözcükler: Kanıtı dayalı uygulama, Örüntü-odaklı Adleryan terapi, Adleryan terapi

Introduction

The requirements and living conditions of the twenty-first century have changed, which has affected mental health. Time is one of the most crucial requirements, and health insurance policies have evolved to support mental health treatments financially. As a result, there is now an expectation that mental health treatments and therapies be evidence-based practices. The American Psychological Association (APA) defines evidence-based practices as the utilization of the most appropriate and valid methods/treatments, considering factors such as the client's characteristics, environment, and culture (APA 2006). Evidence-based practices are essential for providing services as they involve utilizing data to enhance effectiveness, ensure developmental continuity, and maintain scientific reliability (Wampold 1997, Ollendick 2014, Kardaş and Yalçın 2016).

In the 1990s, the APA established a section to evaluate the effectiveness of mental health treatments and therapies. They started publishing a list of empirically tested, evidence-based interventions and therapies by creating a list called "Research-Supported Psychological Treatments" (APA 2006). Additionally, the ethical codes published by the American Counseling Association (ACA 2005) mandate that counselors use theoretical,

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Received: 23.05.2023 | **Accepted:** 25.08.2023

scientific, and empirical methods in their practices. Evidence-based practices play a crucial role in promoting accountability and transparency in the field of psychology (Peluso 2018).

Although Adlerian therapy, also known as individual psychology, has been applied in many fields and inspired many theories, it is at risk of being used less in the coming years because it is not included in the list of evidence-based practices for the 21st century. Norcross et al. (2013) conducted a study titled "Psychotherapy in 2022: A Delphi poll on its future" where experts evaluated the future of psychological theories. The study revealed a growing trend of reimbursement based on treatment effectiveness, adopted by professional organizations, accredited institutions, and the health sector. As a result, Adlerian Therapy is expected to be among the least-utilized theories in the next decade due to the mandatory adoption of evidence-based practices.

A Counseling Today article published by Glenn (2015) revealed that, although many graduate students favored Adlerian therapy as a therapeutic approach, they predominantly utilized Cognitive Behavioral Therapy (CBT) in their practice. This preference for CBT stems from its status as an evidence-based approach, unlike Adlerian therapy. Consequently, evaluations of treatment effectiveness can lead to refunds of fees in cases of treatment inadequacy or dysfunction (Sperry and Binensztok 2018).

Adlerian therapy, known for its comprehensive and eclectic approach, has gained popularity and is frequently employed (Manaster and Corsini 1982, Carlson et al. 2006). However, it encounters challenges in adapting to the evidence-based practices of the twenty-first century (Bitter 2018, John 2018, Travis 2018, Sperry 2018a, Watts 2018). Notably, Adlerian therapy is conspicuously absent from the APA's list of "Research-Supported Psychological Treatments" (2016). Examining the theories on this list reveals that most are cognitive and behavioral, and it is noteworthy that many of these approaches have roots in Adlerian therapy (Sperry 2017). In response to these developments, researchers in Adlerian therapy have focused on integrating evidence-based practices and expanding their applications in this direction over the past three years (Watkins and Guarnaccia 1999, Sperry 2016a, 2018a).

Although many researchers and theorists support evidence-based practices in Adlerian therapy, some researchers resist their implementation. Upon probing the reasons behind this resistance, several factors emerged, including:

- Naive realism, which may lead them to erroneously conclude that the client's change is solely due to the intervention itself, disregarding alternative explanations.
- The belief that evidence-based practices are too time-consuming or impractical for clinical use
- The perception that evidence-based practices dehumanize or disrespect clients by reducing them to mere numbers or diagnoses.
- The belief that evidence-based practices are incompatible with the values and goals of psychotherapy, such as promoting insight or supporting personal growth.
- Evidence-based practices offer a narrower perspective compared to other approaches.
- Therapists' fear that their poor performance will be exposed (Lilienfeld et al. 2013, Peluso 2018, Rasmussen and Howell 2018, Sperry 2018b).

Sperry (2020) argues that resisting evidence-based practices in Adlerian therapy prematurely threatens the survival of this therapeutic approach. To address this concern, Sperry (2018b) suggests that North American Society for Adlerian Psychology (NASAP) leaders and academics actively promote evidence-based practices through training and other initiatives. Furthermore, Sperry (2018b) suggests that Adler himself would have embraced evidence-based practices in his theory, driven by the principles of social interest and social justice. Consequently, Sperry supports the integration of evidence-based practices within the Adlerian approach.

Based on evidence-based research and evaluation standards (APA 2006, SAMHSA 2018), researchers in Adlerian therapy have four main themes requiring clarification to establish an Adlerian therapy as an evidence-based practice. These themes include research design, operationalization, standardization, and treatment manual dissemination and support (Norcross et al. 2013). In order for Adlerian therapy to be considered among evidence-based practices, it necessitates the inclusion of case studies, treatment manuals customized for specific clinical groups, and a diverse array of interventions designed for individuals, families, and groups.. This achievement requires the implementation of clinical outcome research designs and appropriate measurement tools (Norcross et al. 2013, Sperry 2018a, Travis 2018).

Therefore, the evolution towards evidence-based practices and the sustainable growth of Adlerian therapy mandates the establishment of a well-defined core therapeutic strategy, a comprehensive treatment manual, and a substantial body of research and practice (APA Presidential Task Force on Evidence-Based Practice 2006).

Moreover, in addition to being a prominent psychiatrist of the twentieth century, Adler's theory has been widely applied in diverse fields, including school, family, career, addiction, and trauma counseling (Akçaboğan and Hatipoğlu Sümer 2016, Kim et al. 2020, Evans 2021). This adaptability is rooted in the theory's humanistic, short-term, cognitive, postmodern, and culturally sensitive attributes (Watts 2000, Corey 2012), rendering it responsive to the needs of the 21st century.

The pervasive applicability of Adler's theory across numerous facets of life, such as education, family, and career, underscores the imperative of infusing evidence-based principles, aligning with the expectations of 21st century mental health services. Adlerian Pattern-Focused Therapy has been introduced as an attempt to transform Adlerian therapy into an evidence-based approach. Mental health professionals must recognize the need to learn about and implement proven effective practices to meet the evolving demands of the modern era. This study aims to present Adlerian Pattern-Focused Therapy as the first evidence-based application of Adlerian therapy, providing insights into its history, therapy, case conceptualization process, and training. The aim is to develop a comprehensive study that enlightens the reader about the theoretical as well as practical dimensions of pattern-focused therapy.

History of Adlerian Pattern-Focus Therapy

Experts in Adlerian therapy also emphasize the importance of institutional support for the dissemination of evidence-based practice. Official institutions should take responsibility, especially regarding the economic and educational dimensions. In this context, the NASAP is encouraged to prioritize the need for empirical research and provide support for evidence-based practice and research, such as Adlerian Pattern-Focused Therapy, while mentoring graduate students in this field (Travis 2018). To ensure the continuity and progression of Adlerian therapy, it is imperative that it becomes firmly rooted within the domain of evidence-based practice. Consequently, the NASAP launched the Adlerian Research Network in 2016, demonstrating its commitment to supporting intervention research focused on evidence-based practice (Bitter 2018). The NASAP's emphasis on evidence-based practice in Adlerian therapy studies has provided opportunities for researchers to work on this critical aspect.

Adlerian evidence-based practice, also known as the pattern-focused approach, was written by Sperry (2016a) in his book, "Pattern-Focused Therapy". In 2018, *The Journal of Individual Psychology*, one of the oldest publications on Adlerian therapy, dedicated an issue to this topic, with Sperry leading the discussion on the need for evidence-based practice in Adlerian therapy and how to achieve it. Other authors also contributed their work in response to Sperry's article in the same issue. Following this, clinical practice and studies focusing on Adlerian Pattern-Focused Therapy emerged after 2018. Sperry and Binensztok's (2019) book, *Learning and Practicing Adlerian Therapy*, also includes Adlerian Pattern-Focused Therapy and provides a detailed examination of the counseling process through a case study.

Adlerian Pattern-Focused Therapy appears to be the most promising theory for inclusion in evidence-based practice within Adlerian therapy (Peluso 2018). However, the number of studies on this theory remains limited. This study examines Adlerian Pattern-Focused Therapy, which is the only standardized application of Adlerian therapy within evidence-based practice, and its increasing use.

Adlerian Pattern-Focused Therapy

Basic Premises

Adlerian Pattern-Focused Therapy has been field tested by more than 1,000 clinicians for about 12 years (Sperry 2022). This therapy is rooted in four premises: The first premise asserts that individuals unknowingly develop self-perpetuating maladaptive patterns of functioning and relating to others, that form the basis of the client's problem. The second premise emphasizes that pattern change, i.e., shifting towards a more adaptive pattern, is a crucial component of evidence-based practice. The third premise highlights that effective treatment involves identifying the maladaptive pattern and collaborating with the counselor to shift to a more adaptive pattern (Sperry and Binensztok 2018, Sperry 2022). In this process of change, the client's well-being is enhanced, and the presenting problem is resolved (Sperry and Sperry 2012). Finally, the fourth premise proposes that replacing

unproductive thoughts and behaviors with more adaptive and productive ones facilitates rapid therapeutic change (Sperry and Binensztok 2018, Sperry 2022). Therefore, the fourth premise suggests that replacing unproductive thought patterns and behaviors with more adaptive and productive ones can accelerate progress towards significant and positive therapeutic change.

Four Major Sources

The foundations of Adlerian Pattern-Focused Therapy stem from four major sources: pattern focus, query strategy, specific questions and tactics adapted from motivational interviewing, and clinical outcome measures (Sperry 2016b). The concept of “patterns”, as implied by the name of the therapy, refers to predictable, consistent, and persistent patterns in an individual’s thoughts, feelings, behaviors, coping methods, and self-defense styles (Sperry et al. 1996, Sperry 2006). These patterns can be either adaptive or maladaptive. Maladaptive patterns tend to be both inflexible and ineffective, leading to symptoms, impairments, and chronic dissatisfaction with personal and relational functioning. The approach is rooted in biopsychosocial therapy (Sperry 2006).

The nine-question query strategy is a technique developed in conjunction with cognitive behavioral analysis that aims to replace maladaptive patterns with adaptive ones. Motivational interviewing is a counseling strategy that helps individuals explore and resolve their ambivalence about change (Miller and Rollnick 2002). The Cognitive Behavior Analysis System of Psychotherapy and motivational interviewing are evidence-based treatments endorsed by the Society of Clinical Psychology of the American Psychological Association, and each component is integrated into Adlerian Pattern-Focused Therapy (Sperry and Binensztok 2018). The final component of Adlerian Pattern-Focused Therapy is a clinical outcome measure that is used to monitor and evaluate progress in counseling, including therapeutic relationships (Sperry et al. 1996). Measures of clinical outcomes include Patient Health Questionnaire-9 (PHQ-9) ratings and early memories elicited at the beginning and end of each treatment session. PHQ-9 ratings reflect progress toward the initial treatment goal of symptom reduction (Sperry and Binensztok 2018).

Core Therapeutic Strategy

One of the main features of evidence-based therapies is their core strategy (APA Presidential Task Force on Evidence-Based Practice 2006). However, Adlerian theory lacks such a core strategy. The core strategy of Adlerian Pattern-Focused Therapy is a replacement, a widely used strategy designed to replace maladaptive behaviors and thoughts with adaptive ones. This strategy has its roots in classical Adlerian therapy, where individuals often experience discouragement or disconnection due to learned maladaptive lifestyles or life strategies based on feelings of inferiority. Through the replacement strategy, clients learn to think consequentially by considering how to replace their previous maladaptive thoughts, behaviors, emotional reactions, and ways of being with more beneficial ones (Sperry and Binensztok 2018). For instance, when a client expresses feelings of loneliness, depression, and distress on a Saturday evening due to a lack of a friend to spend time with, the therapist can utilize the replacement strategy to help the client find a substitute behavior (e.g., "I can call a friend") or thought (e.g., "When I call my friends, I know that people want to spend time with me") (Sperry and Binensztok 2018).

Sperry (2018a) presented the reasons for determining the replacement strategy as the core strategy, citing its effectiveness in the treatment of chronic depression, its demonstration of positive outcomes in a diverse range of clients from different cultures and conditions, in contrast to the "cognitive change" core strategy, and its compatibility with the "lifestyle assessment" in Adlerian therapy. Belangee (2019) stated that the most effective therapeutic strategy to use in studies of Adlerian Pattern-Focused Therapy is lifestyle assessment. This approach ensures that clients not only gain insight but also engage in new behaviors accompanied by new thought patterns. Replacement, which is the core strategy of Adlerian Pattern-Focused Therapy, has similar features to the techniques used in Adlerian therapy, particularly those of lifestyle assessment. Comparable strategies are also used in Reality Therapy and Narrative Therapy (Sperry 2018a). However, as one of the main goals of Adlerian therapy is to promote social interest, strategies to promote social interest should be incorporated into the basic therapeutic approach (Peluso 2018, Sperry 2018a).

In addition, Sperry stated that several techniques from Adlerian therapy can also be used in the process of reframing or replacing the client's maladaptive behaviors, thoughts, and patterns with adaptive ones. These techniques include the push-button, "pretend" behavior, acting and reflecting "as if", and task-setting (Sperry 2018a). The push-button technique is designed to demonstrate to clients that they have control over their emotional reactions. The client is first asked to focus on a pleasant experience and the emotions it evokes, then

asked to think about an unpleasant experience and the emotions associated with it. Finally, the client is asked to return to the original pleasant feeling. This exercise helps the client realize that they can shift from negative to positive emotions by pressing a metaphorical button, indicating their emotional agency (Mosak 2013). The acting "as if" technique, involves requesting that clients to behave as the person they would like to be, or to emulate a specific behavior or situation (e.g., behaving as a self-confident, harmonious person during a given week) (Carlson et al. 2006). The reflecting "as if" technique encourages clients to think about and question what changes might occur if they acted "as if" and embodied the person they want to become (Watts et al. 2005). Lastly, the task-setting technique aims to enable clients to recognize the impact of their behaviors on others and to encourage them to engage in actions that align with social interest (Sharf 2015).

Treatment Manual

Another crucial feature of evidence-based practice is the presence of a treatment manual to guide the therapeutic process (APA Presidential Task Force on Evidence-Based Practice 2006). Sperry (2018a p. 257) defines a treatment manual as "a written protocol that specifies how therapists are to provide a particular psychotherapy approach in a standardized fashion" and emphasizes that this is a defining feature of evidence-based practice. This manual should also outline client characteristics that may be included or excluded from the therapy, as well as clinical and outcome measures. While the treatment manual is typically strictly adhered to in randomized controlled trials, therapists can adapt it to the specific needs of the client by following its key principles. The Treatment Manual for Adlerian Pattern-Focused Therapy has been developed following the format suggested by Carroll and Nuro (2002).

The Adlerian Pattern-Focused Therapy treatment manual consists of eight chapters, each with specific content (Sperry 2018a).

1. Overview of Adlerian Pattern-Focused Therapy: This section provides a brief introduction to Adlerian Pattern-Focused Therapy, covering its origins and key components. It discusses lifestyle assessment, pattern change, early memories, core strategy, and therapeutic processes.
2. Conceptualization of the Treatment Target and Mechanism of Change: In this section, the manual discusses the diagnostic groups that can be excluded or included in counseling based on the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). The treatment target is defined as mild and moderate depression. Depression is seen as a self-perpetuating pattern of behavior and relationships influenced by systemic and cultural factors, reinforced by maladaptive patterns, resistant to change, and how these can be modified.
3. Treatment Goals: This section focuses on treatment goals, which are categorized into three levels. These goals are discussed throughout the therapeutic process.
4. Contrast to Other Approaches: This section compares Adlerian Pattern-Focused Therapy with the Cognitive Behavioral Analysis System of Psychotherapy, Rational Emotive Behavior Therapy, and Narrative Therapy in terms of their similarities and differences. A comparison table for Cognitive Behavioral Analysis System of Psychotherapy, Rational Emotive Behavior Therapy, Narrative Therapy, and Adlerian Pattern-Focused Therapy (Sperry 2018a) is presented in Table 1.

Therapies	Cognitive Behavior Analysis System of Psychotherapy	Rational Emotive Behaviour Therapy	Narrative Therapy	Adlerian Pattern-Focused Therapy
Therapeutic Goal	Healthier beliefs and behaviors	Healthier beliefs and behaviors	Developing a new perspective/story	Pattern change and increasing social interest
Core Therapeutic Strategy	Replacement	Cognitive change (Discussion)	Replacement (Writing a new story)	Replacement
Techniques	Situational analysis Thought/behavior analysis query Replacement query Core counseling skills	Dispute/challenge specific beliefs	Externalize Normalize Deconstruct Celebrate	Pattern identification Query to shift/replace Pattern change Pattern maintenance

When examining Table 1, it is clear that the Cognitive Behavioral Analysis System of Psychotherapy and Adlerian Pattern-Focused Therapy share the same core therapeutic strategy. In terms of therapeutic

goals, the Cognitive Behavioral Analysis System of Psychotherapy and Rational Emotive Behavior Therapy concentrate solely on belief and behavior change, Narrative Therapy focuses on rewriting problematic stories, whereas Adlerian Pattern-Focused Therapy uses a more comprehensive pattern replacement. Although Adlerian Pattern-Focused Therapy employs techniques such as replacement questioning, similar to the Cognitive Behavioral Analysis System of Psychotherapy, it also utilizes distinct techniques that are unique to its approach.

5. Targeted Interventions: This section provides a detailed description of how to implement Adlerian Pattern-Focused Therapy. It covers essential elements, such as pattern identification and replacement, and question strategies.
6. Session Content: This section describes in detail the session processes and applications of Adlerian Pattern-Focused Therapy.
7. Treatment Format of Specific Sessions: In this section, discusses in sessions such as the first, second, and tenth sessions, which follow a different application process from other sessions, are discussed in detail.
8. The manual concludes with a case study that demonstrates how to follow the protocol.

Structure and Implementation Process of Therapy Sessions

Adlerian Pattern-Focused Therapy involves a structured treatment program of ten sessions, each 50 minutes in length, delivered weekly. Although all sessions in the treatment program are conducted as individual therapy, the 9th and 10th sessions are scheduled at two-week intervals (Sperry and Binensztok 2018, Sperry 2018a, 2022). Detailed session information is described in detail in the papers by Sperry (2018a), Sperry and Binensztok (2018), and Sperry and Binensztok (2019).

Session 1

The primary aim of the first session is to complete the DSM-5 diagnostic assessment. This session includes identifying the client's maladaptive pattern, eliciting at least three first/early memories, exploring the family constellation, and administering the initial Patient Health Questionnaire-9 (PHQ-9) assessment. The family constellation process focuses on themes such as birth order, family values, and the client's sense of belonging within the family. The first memories exploration involves asking the client to remember and share early memories from their life, revealing their perspective on themselves, the world, and others, and their coping strategies through a projective approach. The PHQ-9 is a nine-item questionnaire that correspond to the nine DSM-5 criteria for major depressive disorder (APA 2013). Each item is rated on a 4-point Likert-type scale from 0 to 3 (0 = never, 1 = few days, 2 = more than half of the days, and 3 = almost every day). The PHQ-9, adapted into Turkish by Sari et al. (2016), is used in the diagnosing and treatment of depression. Additionally, question 10 assesses how the client's symptoms affect their functioning at work, at home, and in their interactions with others. At the end of the session, the treatment protocol is explained, and the consent forms are presented to the client for signature, thereby standardizing the therapeutic process as much as possible.

Session 2

Just before the second session, the client completes the PHQ-9 and the Outcome Rating Scale (Miller and Duncan 2000). The Outcome Rating Scale is administered at the beginning of each session to evaluate the client's feelings over the past week, the quality of the therapist-client relationship, social and work-life, and general well-being (Miller and Duncan 2000). During this session, the therapist reviews the progress made since the previous session and discusses any homework assignments. The maladaptive pattern identified in the first session is explored through an example situation brought up by the client. In this process, the client and therapist work together to reach a consensus about the maladaptive pattern, and the client gains an understanding of the reasons for changing this maladaptive pattern.

In this process of working with the maladaptive pattern in the sample situation, the following steps are followed:

1. Identify the maladaptive pattern within the shared situation,
2. Address the onset, continuation, and termination of the problematic situation,
3. Reveal the client's thoughts and interpretations of this situation,

4. Identify the client's behaviors (i.e., words, actions, and non-verbal communication elements) related to this situation,
5. Identify what the client wants to achieve in this situation,
6. Determine what has happened in this situation,
7. Assess whether the client has achieved the desired outcome,
8. Ask the client to consider about how the situation could have been different,
9. Ask the client to assess whether their comments have helped or hindered them in achieving the desired outcome,
10. Ask the client to consider what alternative interpretations might be helpful if the client indicates harm,
11. Ask how important it is for the client to change the maladaptive pattern (Sperry and Binensztok 2018).

The therapist continues the therapeutic process by teaching exercises and techniques to help the client move towards a more adaptive pattern. The quality of the therapeutic relationship is assessed using the Session Rating Scale (Duncan et al. 2003). This four-item scale measures the quality of the therapeutic alliance and is administered at the end of each session. The client is asked questions about the extent to which they were understood and respected in the session; the extent to which the client and therapist agreed on the means, methods or tasks of treatment; the quality of the therapeutic approach; and how satisfied the client was with the session. The client is asked to mark a point on a 10-centimetre line to indicate their level of agreement with each statement (Duncan et al. 2003).

Sessions 3 and 9

Sessions 3 and 9 follow a similar format to session 2. At the beginning of each session, the PHQ-9 and the Outcome Rating Scale are administered to assess the client's progress. The therapist reviews the progress made since the previous session and discusses any homework assignments. During these sessions, a situation-pattern analysis is conducted, in which the client discusses a specific situation they have experienced and their maladaptive pattern. This analysis includes identifying the maladaptive pattern, reaching a consensus about the maladaptive pattern, and acknowledging the need to shift to a more adaptive pattern. The therapist then guides the client through processing the situation and changing the pattern. They explore the pattern shift, change, and maintenance. Homework is then given and the therapeutic relationship is assessed using the Session Rating Scale. In the pattern change process, motivational interviewing techniques are used to address beliefs. In addition, from session 2, part of the session time is devoted to preparing for termination.

Session 10

The tenth session involves a comprehensive review of the therapeutic process and the client's achievements. Prior to the session, the PHQ-9, the Outcome Rating Scale, and the Social Interest Index-Short Form are administered prior to the session. The session begins with a review of progress and any homework that has been completed. The last part of the session is devoted to termination. During this time, the therapist elicits and discusses a second set of first memories. Therapeutic progress is indicated when these memories reflect a more adaptive pattern and a specific goal for change is established. The evaluation of the client's overall therapy experience centers on symptom reduction and goal attainment. Furthermore, this process involves the development of a prevention plan and the formulation of a follow-up strategy.

In summary, each therapy session, especially the early ones, focuses on establishing and maintaining a strong therapeutic relationship using a variety of relationship-building strategies, including the use of an "informed consent form" and motivational interview questions. Subsequent sessions begin with a review of depressive symptoms using the PHQ-9, progress on treatment goals using homework assignments completed since the last session, and the Outcome Rating Scale. A query strategy is then used to analyse the client's behavior in specific problem situations and whether this behavior is helping to achieve the desired outcome or hindering progress. The aim is to identify the maladaptive pattern and explore possible adaptive alternatives. Before concluding the session, mutually agreed homework is set. The motivational interviewing technique is then utilized to address the client's level of importance and confidence in changing the maladaptive pattern (rated on a scale of 0 to 10). The client is asked to reflect on what is needed to increase these ratings. Lastly, the therapeutic relationship

within this session is evaluated, and ways in which the therapist can be more responsive are discussed (Sperry and Binensztok 2018).

During the therapeutic process, several factors influence the client's ability to transform maladaptive patterns into adaptive ones, including the client's motivation, the therapeutic relationship, the therapist's expertise, the accuracy of the case conceptualization and defined patterns, and adherence to the treatment manual (Sperry and Binensztok 2018). To assess the client's motivation, the motivational interview utilizes scaling questions such as "importance" and "confidence." Additionally, the Session Rating Scale is used to evaluate the therapeutic relationship (Sperry and Binensztok 2018).

For illustration, consider the case of Jennifer

"a 21-year-old university law student. Jennifer sought counseling because of a loss of motivation, reduced enjoyment of life, and low mood, which she first experienced about three weeks ago. She attributed these feelings to increased responsibility and pressure in her university courses, impending homework assignments, increased stress levels, and self-imposed isolation from her friends. Jennifer was reluctant to share her situation with her family for fear of disappointing them. Despite her involvement in numerous school activities and events, maintaining a good GPA, and working in the campus grocery store, she worried that her current emotional state might negatively impact her future career as a lawyer."

The Adlerian Pattern-Focused Therapy sessions with Jennifer (Sperry and Binensztok 2018) are presented in Table 2. As can be seen in Table 2, diagnostic evaluation, family constellation, and early memories were addressed initially. Subsequent sessions focused on patterns, motivation for change, and other measures. The final session included an evaluation of the goals of the session and the planning of a follow-up session..

Ses-sion	Summary of Session Content
1	<ul style="list-style-type: none"> • PHQ-9 scale (13 points, moderate depression) and the Social Interest Index-Short Form (Leak 2006) are administered to Jennifer. • Family constellation: As the eldest of three children, success plays a significant role in the family dynamic. She characterizes her father as a high achiever and a perfectionist. The most athletic of her siblings, she has consistently engaged in extracurricular activities and is expected to excel academically, potentially pursuing a career in medicine or law. While her relationship with her family is generally positive, she notes an ongoing pattern of criticism between her parents without resolution. She also expresses mixed feelings towards her youngest brother's recklessness, acknowledging a mixture of jealousy and frustration. • First memories focus on. The client remembers 2 first memories. • Memory 1: When I was 6 years old, I dedicated several hours a day for a week to constructing a towering structure using toy bricks. To my dismay, upon returning home from school the next day, I discovered that my younger sister had dismantled the entire creation. Fueled by frustration, I impulsively pushed her, resulting in my parents reprimanding me by revoking a privilege. • The most vivid image: Seeing my tower collapsed on the floor above the ground. • Feelings: Sad and angry, but I didn't express it. • Thoughts: Everything is ruined. My sister is causing the problem and I'm being punished, it's not fair. • Memory 2: At the age of 8, I performed a violin solo during our school's music recital. Despite a few minor errors, my parents responded with anger, blaming me for inadequate practice. • The most vivid image: Making a mistake. • What I felt: Embarrassed, sad, and worried. • Thoughts: I worked so hard and failed, I can't stand it. • Informed consent and a contract were established. • Pattern exploration followed through examination of early memories, revealing how excessive responsibility and the relentless pursuit of perfectionism hindered her ability to complete tasks. • Homework is planned.
2	<ul style="list-style-type: none"> • The PHQ-9 and the Outcome Rating Scale are administered immediately prior to the start of the session. • The homework is reviewed. • The patterns discussed in the first session are revisited and mutual agreement is reached on the pattern identified. • Efforts are made to address the transition to a more adaptive pattern. • The concepts of behavioral enactment and acting "as if" exercises are introduced and developed. As part of this week's homework, two exercises are assigned for 15 minutes each. • The Session Rating Scale is used to evaluate the effectiveness of the session and the therapeutic relationship.

3	<ul style="list-style-type: none"> • The PHQ-9 and the Outcome Rating Scale are administered immediately prior to the start of the session. • The homework is carefully reviewed, and an evaluation is conducted to gauge the extent to which both exercises were completed and enjoyed by the client. • An instance from the client's personal experience is explored and jointly examined through the lens of a maladaptive pattern. (For instance, Jennifer recounts a scenario in which she submitted an assignment past the deadline due to her compulsion to modify a minor detail. An analysis is conducted to understand how her inclination towards excessive conscientiousness and perfectionism, coupled with her obsessive-compulsive personality traits, influenced the situation). • Subsequently, efforts are made to help her recognize the correlation between this pattern and the manifestation of her depressive symptoms. • Motivational interviewing techniques are used to assess the importance of changing the pattern and the client's level of motivation and confidence. • New activities are planned as homework tasks for the upcoming week, followed by a comprehensive review of the procedure for recording and rating these planned activities. • The Session Rating Scale is used and the therapeutic relationship is also assessed.
4	<ul style="list-style-type: none"> • The PHQ-9 and the Outcome Rating Scale are administered immediately prior to the start of the session. • The homework is reviewed. • An instance from the client's personal experience is explored and analyzed together in terms of a maladaptive pattern. • Motivational interviewing techniques are used to assess the importance of changing the pattern and the client's level of motivation and confidence. • New activities are planned as homework tasks for the upcoming week, followed by a comprehensive review of the procedure for recording and rating these planned activities. • The Session Rating Scale is used and the therapeutic relationship is also assessed.
5	<ul style="list-style-type: none"> • The PHQ-9 and the Outcome Rating Scale are administered immediately prior to the start of the session. • The homework is reviewed. • An instance from the client's personal experience is explored and analyzed together in terms of a maladaptive pattern. • Motivational interviewing techniques are used to assess the importance of changing the pattern and the client's level of motivation and confidence. • New activities are planned as homework tasks for the upcoming week, followed by a comprehensive review of the procedure for recording and rating these planned activities. • The Session Rating Scale is used and the therapeutic relationship is also assessed.
6	<ul style="list-style-type: none"> • The PHQ-9 and the Outcome Rating Scale are administered immediately prior to the start of the session. • The homework is reviewed. • An instance from the client's personal experience is explored and analyzed together in terms of a maladaptive pattern. • Motivational interviewing techniques are used to assess the importance of changing the pattern and the client's level of motivation and confidence. • New activities are planned as homework tasks for the upcoming week, followed by a comprehensive review of the procedure for recording and rating these planned activities. • The Session Rating Scale is used and the therapeutic relationship is also assessed.
7	<ul style="list-style-type: none"> • The PHQ-9 and the Outcome Rating Scale are administered immediately prior to the start of the session. • The homework is reviewed. • An instance from the client's personal experience is explored and analyzed together in terms of a maladaptive pattern. • Motivational interviewing techniques are used to assess the importance of changing the pattern and the client's level of motivation and confidence. • New activities are planned as homework tasks for the upcoming week, followed by a comprehensive review of the procedure for recording and rating these planned activities. • The Session Rating Scale is used and the therapeutic relationship is also assessed.
8	<ul style="list-style-type: none"> • The PHQ-9 and the Outcome Rating Scale are administered immediately prior to the start of the session. • The homework is reviewed. • An instance from the client's personal experience is explored and analyzed together in terms of a maladaptive pattern (Jennifer recounts an incident where she spent the entire night studying, leaving her too fatigued to concentrate on her exam the following day). • Subsequently, guidance is provided to aid in comprehending the connections between one's established pattern and the consequences of the aforementioned scenario, as well as the influence of said pattern on the display of depressive symptoms.

	<ul style="list-style-type: none"> • Strategies for identifying alternative thoughts and behaviours that are less self-critical and more constructive are explored. • New activities are planned as homework tasks for the coming week, followed by a comprehensive review of the procedure for recording and evaluating these planned activities. • The "push-button" technique is introduced and explained. During the session, this technique is implemented by reflecting on two positive and two negative experiences, and the participant is instructed to use this method between sessions as well as during the session. • The Session Rating Scale is used and the therapeutic relationship is also assessed.
9	<ul style="list-style-type: none"> • The PHQ-9 and the Outcome Rating Scale are administered immediately prior to the start of the session. • The homework is reviewed. • An instance from the client's personal experience is explored and analyzed together in terms of a maladaptive pattern. • Motivational interviewing techniques are used to assess the importance of changing the pattern and the client's level of motivation and confidence. • New activities are planned as homework tasks for the coming week, followed by a comprehensive review of the procedure for recording and evaluating these planned activities. • The Session Rating Scale is used and the therapeutic relationship is also assessed.
10	<ul style="list-style-type: none"> • The PHQ-9 scale, the Social Interest Index-Short Form, and the Outcome Rating Scale are administered immediately prior to the start of the session. • The homework is reviewed. • A second set of early memories is elicited and then discussed. If these memories demonstrate an adaptive pattern, therapeutic progress can be inferred, indicating the accomplishment of second-level treatment goals. • Memory 1: At the age of 6, I built a tall tower using legos. The following day, upon returning from school, I discovered that my younger sister had knocked it down. However, with my mother's help, we managed to rebuild it together. • The most vivid image: Collaborating with my mother to rebuild the tower. • How I felt: I felt good. • Thought: It was nice to have my mother's help and emotional encouragement. • Memory 2: When I was 8 years old, I diligently practiced my debate speech for an hour every day. Following my efforts, my teacher informed me that I had been chosen to deliver the speech during the school-wide performance. • The most vivid image: The moment I was informed that I had been chosen to give the speech. • What I felt: Excitement and gratitude. • Reflection: I was able to achieve this success without being overly consumed by it, maintaining a healthy balance in my life. • Existing symptoms and progress in symptom relief are reassessed according to the first level treatment goals. • A post-therapy prevention strategy is developed. • Within the context of the client's third-level treatment goals, a discussion ensues regarding the client's future areas of focus. • Plans are made for a follow-up session.

Case Conceptualization

The Adlerian Pattern-Focused Therapy case conceptualization contains six categories, known as the "6 Ps": presentation, precipitants (triggers), predispositions, patterns, perpetuants, and plan (treatment goals).

The presentation describes the client's problem, including symptoms, severity, personal and social functioning, history, and medical and DSM diagnoses. Precipitants (triggers) refer to the situational factors that led to the client's current problem. Predispositions include the factors that nurture and lead to either maladaptive or adaptive patterns. Biological, psychological, cultural, and social factors that have a positive or negative impact on the therapeutic process are considered in the context of predispositions. Perpetuants are those factors that maintain the existing problem. Finally, the case conceptualization plan outlines treatment goals, intervention methods, and possible barriers in the therapeutic process. Treatment goals are addressed on three levels: The first level focuses on symptom reduction and problem-solving, the second level aims to change maladaptive patterns into adaptive ones, and the third level involves changes that the client makes independently. Therapy focuses primarily on the first and second-level change goals (Sperry and Binensztok 2018, Sperry 2022).

Throughout the case study, Table 2 discusses the presentation, precipitants, predispositions, patterns, perpetuants, and plan/treatment goals mentioned in the case conceptualization process of Adlerian Pattern-Focused Therapy (Sperry and Binensztok 2018).

A summarized example of case conceptualization in Adlerian Pattern-Focused Therapy is provided in Table 3.

Case Conceptualization Titles	Case*
Presentation	Depressed mood and demoralization.
Precipitants	His girlfriend asked him to move in with her.
Predispositions	History of rejection, ridicule, and isolating behavior.
Patterns	Avoidance and shunning of others to avoid criticism and rejection.
Perpetuants	Social isolation and avoidance of intimacy. The avoidant pattern contributes to and maintains depressive symptoms by leading to social isolation, self-critical thoughts, and a reduced ability to function in close relationships.
Plan (Treatment goals)	First Level: Reduction of depression symptoms, increased activity, increased social interest. Second Level: Replacing the avoidant pattern with an adaptive pattern.

*A 35-year-old male client A 35-year-old male client expresses feelings of mild discomfort and demoralization following his partner's proposal to live together. His partner's proposal to live together. He discloses that this is marks his first significant relationship since being ridiculed by a former girlfriend during a high school relationship. The client perceives his partner's request as burden, describing it as "excessive pressure." Furthermore, he discloses his tendency to maintain emotional distance from others and to avoid taking personal risks, due to fears of criticism and rejection.

Therapeutic Relationship	Having an encouraging and supportive attitude based on mutual respect and cooperation
Therapeutic Goal	Pattern change Increasing social interest
Core Therapeutic Strategy	Replacement
Techniques	Pattern identification Questry for change and pattern change Maintained the changing pattern
Evaluation	Predisposing Factors: family constellation, early memories Pattern identification, risk, and protective factors, and other positive/negative factors that may affect treatment
Case Conceptualization	Integrated conceptualization based on pattern, presentation, precipitants (triggers), predispositions, patterns, perpetuants, and plan (treatment goals, intervention methods, and possible treatment obstacles)
Intervention	Goals: Symptom reduction and/or problem-solving; change maladaptive to adaptive pattern; increase social interest. Strategy: Replacement: moving from a maladaptive model to a more adaptive model Interventions: lifestyle assessment, analysis of early memories, interpretation, encouragement, "as if", pattern identification and change, behavioral activation, role-playing

Training

For Adlerian therapy to attain the status of evidence-based practice, the current standardized version, Adlerian Pattern-Focused Therapy, is being utilized. This approach has been integrated into a master's level psychotherapy programs since 2012 (Sperry 2016b, Sperry and Sperry 2018). Counselors and therapists trained in this model have the opportunity to apply different theoretical underpinnings to clients' situations by examining their patterns from a biopsychosocial perspective. Adlerian therapy training includes two different case conceptualization processes, which are taught in a standardized two-hour workshop format. Those who complete these workshops then progress to a one-semester Master's course. In this approach, trainees are expected to identify a client's maladaptive pattern within 5 minutes and then compare life strategies derived from two initial memories to confirm or modify the maladaptive pattern identified during clinical interviews (Sperry 2022).

As Adlerian Pattern-Focused Therapy becomes more prevalent in education, researchers emphasize that it should be used alongside other evidence-based practices developed within Adlerian therapy, should be used while considering that they narrow the broad perspective offered by the theory. They emphasize that the main purpose of using evidence-based practices is to facilitate learning and understanding of the theory's broader models (Rasmussen and Howell 2018, Sperry 2018b). Table 4 presents a visualized summary of the Adlerian Pattern-Focused Therapy discussed in this article, including its purpose, the therapeutic relationship, assessment, interventions, and techniques used in the therapeutic process.

Conclusion

Contemporary researchers and practitioners in the field of Adlerian therapy have recognized the need to produce clinical studies to demonstrate the effectiveness of Adlerian therapy, which has been used for many years with a wide range of clients and has pioneered numerous theories. As social needs and demand change, there is a growing need for empirical evidence to support its effectiveness. In response to this need, Adlerian Pattern-Focused Therapy has emerged as one of the theories developed to establish the evidence base for Adlerian therapy. Adlerian Pattern-Focused Therapy is an up-to-date approach based on the fundamental concepts and techniques of Adlerian therapy, such as social interest, early memories, family constellation, lifestyle, and lifestyle change. It incorporates a core strategy compatible with Adlerian therapy and provides a basic treatment manual for clinical trials, making it easier to achieve evidence-based status within 10 sessions. In addition, this approach integrates evidence-based elements of cognitive behavioral therapy such as query strategy, motivational interviewing, and outcome measures.

Recently, Adlerian Pattern-Focused Therapy has been gaining attention within the field of individual psychology among therapists and researchers, largely driven by the increasing demand for evidence-based therapeutic approaches. Its structured session processes and ease of evaluation for effectiveness, together with the availability of postgraduate training opportunities, suggest that interest in this therapy will continue to grow. Despite its promising potential, there are no examples of its use in Turkey. However, this therapeutic approach has the capacity to provide valuable insights to professionals specializing in individual psychology. Consequently, the contribution of this study is to increase the understanding of the intervention process of Adlerian Pattern-Focused Therapy and its reflection on the client. While Adlerian Pattern-Focused Therapy has shown promising results in evidence-based practice, with a focus on identifying and modifying maladaptive behavior and thought patterns, further research is needed to fully understand its effectiveness across different client populations and cultures, as well as its long-term effects on clients.

References

- Akçabozan NB, Hatipoğlu Sümer Z (2016) Adler yaklaşımında aile danışmanlığı. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 6:87-101.
- ACA (2005) American Counseling Association Code of Ethics. Alexandria, VA, American Counseling Association.
- APA Presidential Task Force on Evidence-Based Practice (2006) Evidence-based practice in psychology. *Am Psychol*, 61:271-285.
- Belangee S (2019) Adlerian psychology in the era of evidence-based practice: a reflection from a clinician in private practice. *J Individ Psychol*, 75:205-209.
- Bitter J R (2018) Sperry's "achieving evidence-based status for Adlerian therapy: why it is needed and how to accomplish it: a response. *J Individ Psychol*, 74:287-295.
- Carlson J, Watts RE, Maniaci M (2006) *Adlerian Therapy: Theory and Practice*. Washington DC, American Psychological Association.
- Carroll KM, Nuro KF (2002) One size can not fit all: a stage model for psychotherapy manual development. *Clin Psychol*, 9:396-406.
- Corey G (2012) *Theory and Practice of Counseling and Psychotherapy*, 9th ed. Boston, MA, Brooks/Cole, Cengage learning.
- Division 12 of the American Psychological Association (2016) Research supported psychological treatments. <https://www.div12.org/psychological-treatments/> (Accessed 15.04.2023).
- Duncan BL, Miller SD, Sparks JA, Claud DA, Reynolds LR, Brown J et al.(2003) The session rating scale: preliminary psychometric properties of a "working" alliance measure. *J Brief Ther*, 3:3-12.
- Evans C (2021) Trauma-informed Adlerian play therapy: a case study. *J Individ Psychol*, 77:362-373.
- John K (2018) Sperry's "achieving evidence-based status for Adlerian therapy: why it is needed and how to accomplish it". *J Individ Psychol*, 74:296-301.
- Glenn K (2015) Can you relate? *Couns Today*, 58:48-52.

- Kardaş F, Yalçın İ (2016) Kanıta dayalı uygulamalar ve psikolojik danışma ve rehberlik alanına yansımaları. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 6:13-24.
- Kim E, Seo J, Paik H, Sohn S (2020) The effectiveness of Adlerian therapy for Hwa-Byung in middle-aged South Korean women. *Couns Psychol*, 48:1082-1108.
- Leak GK (2006) Development and validation of a revised measure of Adlerian social interest. *Soc Behav Pers*, 34:443-450.
- Lilienfeld SO, Ritschel LA, Lynn SJ, Cautin RL, Litzman RD (2013) Why many clinical psychologists are resistant to evidence-based practice: root causes and constructive remedies. *Clin Psychol Rev*, 33:883-900.
- Manaster G, Corsini R (1982) *Individual Psychology: Theory and Practice*. Itasca, IL, Fe Peacock.
- Miller SD, Duncan BL (2000) *The Outcome Rating Scale*. Chicago, IL, Author.
- Miller W, Rollnick S (2002) *Motivational Interviewing*, 2nd ed. New York, Guilford.
- Mosak HH (2013) Interrupting a depression: The Pushbutton Technique. In *Techniques in Adlerian Psychology* (Eds Jon Carlson, Steven Slavik):267-272. New York, Taylor & Francis.
- Norcross JC, Pfund RA, Prochaska JO (2013) Psychotherapy in 2022: a Delphi poll on its future. *Prof Psychol Res Pr*, 44:363-370.
- Ollendick TH (2014) Advances toward evidence-based practice: where to from here? *Behav Ther*, 45: 51-55.
- Peluso PR (2018) Adlerian evidence-based practice research: a response to Sperry (2018). *J Individ Psychol*, 74:265-271.
- Rasmussen PR, Howell RH (2018) Why achieving evidence-based status is needed: a response to Sperry. *J Individ Psychol*, 74:272-275.
- Sari YE, Kokoglu B, Balcioglu H, Bilge U, Colak E, Unluoglu I (2016) Turkish reliability of the Patient Health Questionnaire-9. *Biomed Res (Aligarh)*, 27:460-462
- Sharf R S (2015) *Theories of Psychotherapy Counseling: Concepts and Cases*, 6th ed. Canada, Cengage Learning.
- Sperry J, Sperry L (2018) *Cognitive Behavior Therapy in Professional Counseling Practice*. New York, Routledge.
- Sperry L (2006) *Psychological Treatment of Chronic Illness: The Biopsychosocial Therapy Approach*. New York, American Psychological Association.
- Sperry L (2016a) Pattern-focused psychotherapy. In *Mental Health and Mental Disorders: An Encyclopedia of Conditions, Treatments, and Well-being* (Ed. L Sperry):816-818.Santa Barbara, Greenwood.
- Sperry L (2016b) Educating the next generation of psychotherapists: considering the future of theory and practice in Adlerian. psychotherapy. *J Individ Psychol*, 72:4-11.
- Sperry L (2017) Similarities between cognitive behavior therapy and Adlerian psychotherapy: assessment, case conceptualization, and treatment. *J Individ Psychol*, 73:110-123.
- Sperry L (2018a) Achieving evidence-based status for Adlerian therapy: why it is needed and how to accomplish it. *J Individ Psychol*, 74:247-263.
- Sperry L (2018b) More evidence for evidence-based Adlerian therapy: responding to the responders. *J Individ Psychol*, 74:302-308.
- Sperry L (2022) Adlerian case conceptualization and therapy: the pattern-focused approach. *J Individ Psychol*, 78:465-478.
- Sperry L, Binenszok V (2018) Adlerian pattern-focused therapy: a treatment manual. *J Individ Psychol*, 74:309-348.
- Sperry L, Binenszok V (2019) *Learning and Practicing Adlerian Therapy*. San Diego, CA, Cognella.
- Sperry L, Brill P, Howard K, Grissom G (1996) *Treatment Outcomes in Psychotherapy and Psychiatric Interventions*. New York, Routledge
- Sperry L, Sperry J (2020) *Case Conceptualization: Mastering This Competency with Ease and Confidence*. 2nd ed. New York, Routledge.
- Travis S (2018) Why individual psychology needs to gain evidence-based status. *J Individ Psychol*, 74:281-286.
- Wampold B (1997) Methodological problems in identifying efficacious psychotherapies. *Psychother Res*, 7:21-43.
- Watkins CE, Guarnaccia C (1999) The Scientific Study of Adlerian Theory. In *Interventions and Strategies in Counseling and Psychotherapy* (Eds. R Watts, J Carlson):207-230. New York, Taylor & Francis.
- Watts RE (2018) Adlerian therapy and the need for outcome efficacy research. *J Individ Psychol*, 74:277-280.
- Watts RE (2000) Entering the new millennium: is individual psychology still relevant? *J Individ Psychol*, 56:21-30.
- Watts RE, Peluso PR, Lewis TF (2005) Expanding the acting as if technique: an Adlerian/constructive integration. *J Individ Psychol*, 61:380-387.

Authors Contributions: The author(s) have declared that they have made a significant scientific contribution to the study and have assisted in the preparation or revision of the manuscript

Peer-review: Externally peer-reviewed.

Conflict of Interest: No conflict of interest was declared.

Financial Disclosure: No financial support was declared for this study.