

# Revisiting defense mechanisms in contemporary clinical practice: evidence and perspectives

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## ABSTRACT

The paper revisits defense mechanisms as central regulators of emotional life and self-coherence in contemporary clinical practice, showing how a classical psychodynamic construct has evolved into an empirically measurable, transdiagnostic dimension of functioning. After outlining the historical development of the concept, the authors present the hierarchical model of defenses, operationalized through the Defense Mechanisms Rating Scale (DMRS), as the current reference framework for assessment of thirty individual defenses across seven levels of adaptiveness. Empirical studies using the DMRS – also in its observer-rated Q-sort and self-report versions – indicate that shifts toward more mature defenses predict better outcomes across different treatment orientations, suggesting that changes in defensive functioning may represent a common factor underlying psychotherapeutic change. These advances are integrated with dimensional and transdiagnostic approaches, including the *Psychodynamic Diagnostic Manual, Third Edition* (PDM-3), in which defenses play a pivotal role in evaluating personality organization on Axis P and mental capacities on Axis M, thereby complementing symptom-focused systems such as the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision* (DSM-5-TR) and the *International Classification of Diseases* (ICD-11). The paper also discusses conceptual overlaps with coping and emotion regulation, the limitations of cross-sectional and self-report methodologies, and the need for longitudinal, cultural, and neuro-psychodynamic research, proposing defense mechanisms as a unifying language that links psychodynamic theory, empirical psychology, and neuroscience.

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Citation: Lingiardi, V., & Madeddu, F., (2025). Revisiting defense mechanisms in contemporary clinical practice: evidence and perspectives. *Research in Psychotherapy: Psychopathology, Process and Outcome*, 28(3), 877. doi: 10.4081/ripppo.2025.877

Conflict of interest: the authors have no conflict of interest to declare.

Ethics approval and consent to participate: not required.

Availability of data and materials: all data and materials are available from the corresponding author upon reasonable request.

Received: 10 November 2025.

Accepted: 19 November 2025.

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*Research in Psychotherapy: Psychopathology, Process and Outcome* 2025; 28:877  
doi:10.4081/ripppo.2025.877

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**Key words:** defense mechanisms, assessment, clinical psychology, psychotherapy, process-outcome research.

## Introduction

Defense mechanisms have long held a central place in psychodynamic theory, conceptualized as unconscious processes by which the ego shields itself from conflict, anxiety, and distress. Since Freud's early formulations (1894), defenses have remained among the most enduring and clinically valuable concepts in psychoanalysis. However, the twenty-first century has seen a renewed interest in these psychological mechanisms – not only as theoretical constructs but also as empirically measurable dimensions of psychological functioning. The work of Vaillant (1971, 1977, 1992), Perry (1990, 2014), and Cramer (1991, 2015) has significantly reshaped our contemporary understanding of defenses. Moreover, the development of assessment tools such as the Defense Mechanisms Rating Scale (DMRS; Perry, 1990), as well as its observer-rated Q-sort and self-report derivatives (Di Giuseppe *et al.*, 2020), has enabled researchers to examine how defenses operate across both clinical and non-clinical populations, thereby bridging psychodynamic theory with evidence-based paradigms. Despite these advances, defense mechanisms stand at a conceptual crossroads. On the one hand, they remain one of the most profound contributions of classical psychoanalysis, illuminating the dynamic regulation of internal conflict. On the other hand, they are being recontextualized by empirical psychology as transdiagnostic constructs operating in parallel with coping strategies, emotion regulation, and personality organization (Lingiardi & McWilliams, 2025a, 2025b; Rice & Hoffman, 2014).

## Clinical and transdiagnostic relevance

From a clinical-dynamic perspective, defenses are not inherently pathological. Rather, they constitute the architecture of psychological adaptation, representing mechanisms through which the mind negotiates between instinctual drives, moral imperatives, and external reality. Anna Freud (1936) emphasized that a defense may serve either adaptive or maladaptive functions, depending on the ego's maturity and flexibility. Building on this, Vaillant (1992, 2000) developed a hierarchy of defensive maturity, empirically demonstrating that mature defenses (*e.g.*, sublimation, humor, altruism) are associated with long-term psychosocial adjustment. This hierarchical model was further refined by Perry's DMRS framework (Perry, 1993, 2014), which is now regarded as the contemporary theoretical standard for understanding defense mechanisms (Di Giuseppe & Lingardi, 2023; Di Giuseppe & Perry, 2021).

In contemporary psychotherapeutic practice, a patient's defensive profile is assessed to gain valuable insights into their emotional development and self-regulatory capacities. Clinicians, for instance, often observe that individuals with anxious traits tend to rely on defenses such as repression or undoing, while those with borderline or trauma-related organizations more commonly exhibit splitting, projection, or projective identification. Thus, defenses are not merely descriptive labels, but meaningful indicators of the ways in which individuals manage affect, attachment, and mentalization – factors that guide effective clinical interventions (Tanzilli *et al.*, 2021b). Furthermore, empirical studies have confirmed the prognostic significance of defenses across various clinical settings. Research employing DMRS coding in psychodynamic, cognitive, and integrative therapies, for instance, has shown that a shift toward more adaptive defenses predicts more favorable therapeutic outcomes, regardless of the treatment orientation (Babl *et al.*, 2019; Fiorentino *et al.*, 2024). These findings suggest that defense mechanisms may function as a common factor in therapeutic change, affirming a hypothesis long held within psychodynamic theory (Kernberg, 1994).

In light of both theoretical and empirical advances, defense mechanisms should be conceptualized as transdiagnostic regulators of emotion and self-coherence, operating at the intersection of unconscious motivation and adaptive functioning. By integrating psychodynamic formulations with developments in emotion regulation, coping theory, and network-based models of psychopathology, defenses can be reframed not as relics of classical theory, but as empirically grounded processes with significant clinical and developmental relevance (Di Giuseppe *et al.*, 2024a). The transdiagnostic paradigm emerged in response to the limitations of symptom-oriented diagnostic systems (*e.g.*, the *Diagnostic and Statistical Manual of Mental Disorders* [DSM; American Psychiatric Association, 2022] and the *International Classification of Diseases* [ICD; World Health Organization, 2019]), which often fail to capture the underlying mechanisms shared across multiple disorders. For instance, rather than conceptualizing anxiety, depression, or trauma as discrete entities, contemporary frameworks such as the Research Domain Criteria and the Hierarchical Taxonomy of Psychopathology (HiTOP) emphasize broader dimensions of functioning, such as negative affectivity, cognitive control, and threat response. Moreover, in response to the need for a model emphasizing psychological functioning over categorical diagnoses, the *Psychodynamic Diagnostic Manual* (PDM, now in its 3rd edi-

tion) was established to provide a dimensional framework (Lingardi & McWilliams, 2018, 2025a).

Defense mechanisms play a central role in the PDM-3, where they are assessed as a parameter of personality organization within Axis P. Consistent with Kernberg's (1967) spectrum of functioning – ranging from healthy to psychotic – mature defenses characterize healthy personalities; neurotic and mild image-distorting defenses typify neurotic structures; and immature and psychotic defenses are associated with borderline and psychotic organizations, respectively. In Axis M, defensive functioning is included among the maturational capacities reflecting the adaptability of an individual's psychological functioning (Lingardi *et al.*, 2018). As described by Lingardi *et al.* (2025):

“The capacity for defensive functioning involves the ways we attempt to manage anxiety coming from motives, affects, urges, wishes, memories, thoughts, internal conflicts, or external challenges. Individuals who function well in this area are able to use defenses effectively, integrating both emotional and cognitive components of a challenging experience with no distortion or minimal distortion in reality testing; those with worse defensive functioning use less adaptive defenses that include greater reality distortion.”

Defense mechanisms align naturally with transdiagnostic thinking, as they are not confined to specific disorders, but operate across a wide spectrum of psychological conditions, mediating the ways in which individuals perceive, interpret, and regulate affective experience (Fiorentino *et al.*, 2024). Whether in depression, anxiety, or trauma-related conditions, defensive style often predicts overall functioning more consistently than symptom presentation. For example, projection and splitting are not exclusive to borderline pathology, but also emerge in mood disorders and during interpersonal conflict under stress. Similarly, repression and reaction formation appear in both adaptive and maladaptive forms across diagnostic categories. Furthermore, defense mechanisms offer a valuable lens to support the precise delineation of the severity of clinical presentation and further clarification of diagnostic and therapeutic nuances (*e.g.*, differentiating subtypes of narcissistic manifestations). In trauma contexts, for instance, dissociation and denial may provide short-term protection yet hinder long-term integration, whereas humor and sublimation may support the symbolic elaboration of painful experience. These dynamics echo foundational psychoanalytic insights while converging with contemporary neurobiological findings on affect regulation and resilience. Increasingly, emerging research is exploring the relationship between defensive functioning and neural markers of emotional control, suggesting a potential bridge between psychodynamic theory and affective neuroscience (Ginot, 2009, 2015; Hoşgören-Alıcı *et al.*, 2023; Northoff *et al.*, 2007; Rice & Hoffman, 2014).

In psychotherapy, defense mechanisms provide a roadmap for intervention (Kramer *et al.*, 2010, 2013; Perry & Bond, 2012). Contemporary clinicians are increasingly viewing therapeutic change not as mere symptom reduction, but as the transformation of defensive structures from rigid, automatic patterns to more flexible, reality-oriented defenses. This process of “defensive reorganization” is thought to reflect developmental growth in ego capacity, and can be observed through both qualitative and quantitative lenses (Conversano *et al.*, 2023; Di Giuseppe *et al.*, 2024b).

## The critical role of empirical research

One of the most significant advances in recent decades has been the capacity to render defense mechanisms accessible to empirical investigation. A long-standing criticism of psychodynamic theory has been its purported lack of empirical testability. However, quantitative methodologies utilizing observer-rated, self-report, and projective techniques have been developed to address this gap, with the DMRS (Perry, 1990) remaining the gold standard for assessing defensive functioning.

The DMRS offers a theoretically grounded and empirically validated system for classifying 30 individual defenses across seven levels of defensive maturity. However, its complexity has restricted its use to limited research domains, particularly psychotherapy studies involving small clinical samples (Babl *et al.*, 2019; Kramer *et al.*, 2013). To address this limitation while preserving the integrity of the theoretical framework, new, user-friendly assessment tools have been developed in the form of observer-rated (DMRS-Q; Békés *et al.*, 2021; Di Giuseppe & Perry, 2021) and self-report methodologies (DMRS-SR-30; Di Giuseppe *et al.*, 2020). These innovations have made it possible to extend research to larger samples (Perry *et al.*, 2022), conduct cross-cultural and transdiagnostic investigations (Békés *et al.*, 2023; Liotti *et al.*, 2025), compare different methodological applications of the DMRS framework (Di Giuseppe *et al.*, 2020), and explore defensive functioning in new clinical populations (Carone *et al.*, 2025; Mirabella *et al.*, 2025; Tanzilli *et al.*, 2021a, 2024; Tracchegiani *et al.*, 2025).

Building on the insights of Vaillant and Cramer – who posited that defensive maturity underlies mental health as a general adaptive capacity – assessment methods tailored to particular research demands have become essential. The convergence of clinical observation and statistical modeling offers a pragmatic bridge between hermeneutic and scientific traditions, promising continued evolution while preserving the rigor and validity of the DMRS methodology.

## Methodological and theoretical reflections

While defense mechanisms are now widely acknowledged in both clinical and empirical research, their conceptual overlap with related constructs – particularly coping and emotion regulation – remains a subject of debate. Empirically, coping refers to conscious, goal-directed efforts to manage stress, while emotion regulation encompasses both conscious and automatic processes modulating affective states. In contrast, defenses are primarily unconscious operations aimed at mitigating internal psychic conflict, rather than resolving external challenges.

In their scoping review, Silverman and Aafjes-van Doorn (2023) proposed that defense mechanisms and coping strategies may be understood as complementary elements of the mind's adaptive repertoire, differing mainly in the level of conscious awareness. Research increasingly points to a functional continuity among these processes, supporting a more holistic view of adaptation in clinical practice. For instance, a patient who intellectualizes rather than represses may be demonstrating a defensive shift toward greater consciousness and flexibility. The risk, however, lies in reducing defenses to purely cognitive strategies, thereby overlooking the dynamic core of psychoanalytic theory – the interplay of desire, anxiety, and representation. A balanced perspective would therefore position defenses as in-

tegrative constructs bridging psychodynamic meaning and psychological regulation, rather than treating them as interchangeable with coping or regulation.

Despite promising empirical advances, several conceptual and methodological challenges remain unresolved. First, the predominance of cross-sectional research limits causal inference. Longitudinal studies, particularly those tracking changes in defenses throughout psychotherapy, are needed to determine whether defensive transformation precedes, follows, or co-occurs with symptom improvement. Second, many existing instruments rely heavily on self-report measures, which can only access the conscious correlates of defensive functioning. Future research would therefore benefit from multimethod approaches incorporating narrative, behavioral, and physiological data to capture the full spectrum of defensive processes. Third, the cultural dimension of defenses requires greater scholarly attention. While cross-national studies (primarily conducted in Western contexts) suggest broad structural consistency, qualitative findings indicate that the meaning and expression of specific defenses (*e.g.*, fatalism, restraint) vary across cultures. Distinguishing universal defensive structures from culturally embedded expressions remains an important task for future research. Finally, integration with neuroscience is still in its early stages (Rice & Hoffman, 2014). Some scholars posit that defenses function as higher-order cognitive-affective control systems mediated by prefrontal and limbic regions, while others argue that their essence lies in symbolic transformation rather than neural circuitry (Northoff, 2011). A productive dialogue between these perspectives may enrich both fields – psychodynamic theory and affective neuroscience – without reducing one to the other.

## Future research perspectives

The study of defense mechanisms stands to benefit from a developmental and neuropsychodynamic synthesis – one conceiving defenses as emergent patterns within the mind's self-regulatory architecture, shaped by attachment dynamics, temperament, and environmental stressors (Lingiardi & Madeddu, 2023). Longitudinal research tracking defensive functioning from adolescence into adulthood could illuminate how early attachment insecurity fosters reliance on primitive defenses such as projection or splitting, and how therapeutic relationships may facilitate the emergence of more adaptive defensive strategies.

Integration with developmental neuroscience may further clarify how the maturation of executive function supports the shift from automatic, affect-driven defenses to more reflective and symbolically mediated ones. Additionally, the clinical utility of assessing defensive functioning may extend beyond psychodynamic frameworks. In particular, the application of defense assessment in cognitive-behavioral and mindfulness-based therapies could enrich our understanding of psychological change and resilience (Perry & Bond, 2012). Within this integrative view, defense mechanisms may offer a common language across therapeutic modalities, providing a shared foundation for understanding adaptive transformation (Perry & Bond, 2017).

More than a century after Freud's foundational insights, defense mechanisms remain a vital and evolving concept within contemporary clinical science. Far from being relics of classical psychoanalysis, they now occupy a central position in transdiagnostic and integrative models of mental health (Carone *et al.*, 2023; Martino *et al.*, 2023). The convergence of psychodynamic observation, empirical methodology, and neuroscientific investigation has begun to confirm what clinicians have long observed:

the way in which individuals defend is as crucial as what they feel or think. Thus, the future of defense research does not lie in abandoning its psychodynamic heritage, but in expanding it – linking unconscious processes with measurable outcomes, and subjective meaning with objective data.

By viewing defense mechanisms as a critical interface between the inner world and empirical science, we can move toward a truly integrative understanding of the human mind – one that respects its complexity without compromising scientific rigor. When we consider the role defenses play in shaping psychological well-being, it becomes clear how essential it is for both clinicians and researchers to examine defensive functioning with as much accuracy and depth as possible.

## References

- American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). Available from: <https://doi.org/10.1176/appi.books.9780890425787>
- Babl, A., Grosse Holtforth, M., Perry, J. C., Schneider, N., Dommann, E., Heer, S., Stähli, A., Aeschbacher, N., Egger, M., Eggenberg, J., Sonntag, M., Berger, T., & Caspar, F. (2019). Comparison and change of defense mechanisms over the course of psychotherapy in patients with depression or anxiety disorder: Evidence from a randomized controlled trial. *Journal of Affective Disorders, 252*, 212-220. doi: 10.1016/j.jad.2019.04.021
- Békés, V., Prout, T. A., Di Giuseppe, M., Ammar, L. W., Kui, T., Arsena, G., & Conversano, C. (2021). Initial validation of the Defense Mechanisms Rating Scales Q-sort: A comparison of trained and untrained raters. *Mediterranean Journal of Clinical Psychology, 9*(2). doi: 10.13129/2282-1619/mjcp-3107
- Békés, V., Starrs, C. J., Perry, J. C., Prout, T. A., Conversano, C., & Di Giuseppe, M. (2023). Defense mechanisms are associated with mental health symptoms across six countries. *Research in Psychotherapy: Psychopathology, Process, and Outcome, 26*(3). doi: 10.4081/ripppo.2023.729
- Carone, N., Benzi, I. M. A., Muzi, L., Parolin, L. A. L., & Fontana, A. (2023). Problematic internet use in emerging adulthood to escape from maternal helicopter parenting: Defensive functioning as a mediating mechanism. *Research in Psychotherapy: Psychopathology, Process, and Outcome, 26*(3), 693. doi: 10.4081/ripppo.2023.693
- Carone, N., Tracchegiani, J., & Lingardi, V. (2025). Maternal attachment state of mind and defensive functioning in pregnancy: Predicting mother-infant relationship at 6 months through the PDM-2 Infancy and Early Childhood section. *Frontiers in Psychology, 16*, 1568620. doi: 10.3389/fpsyg.2025.1568620
- Conversano, C., Di Giuseppe, M., & Lingardi, V. (2023). Case report: Changes in defense mechanisms, personality functioning, and body mass index during psychotherapy with patients with anorexia nervosa. *Frontiers in Psychology, 14*, 1081467. doi: 10.3389/fpsyg.2023.1081467
- Cramer, P. (1991). *The development of defense mechanisms: Theory, research, and assessment*. Springer-Verlag. doi: 10.1007/978-1-4613-9025-1
- Cramer, P. (2015). Understanding defense mechanisms. *Psychodynamic Psychiatry, 43*(4), 523-552. doi: 10.1521/pdps.2015.43.4.523
- Di Giuseppe, M., Aafjes-van Doorn, K., Békés, V., Gorman, B. S., Stukenberg, K., & Waldron, S. (2024b). Therapists' defense use impacts their patients' defensive functioning: A systematic case study. *Research in Psychotherapy: Psychopathology, Process and Outcome, 27*(2). doi: 10.4081/ripppo.2024.797
- Di Giuseppe, M., & Lingardi, V. (2023). From theory to practice: The need of restyling definitions and assessment methodologies of coping and defense mechanisms. *Clinical Psychology: Science and Practice, 30*(4), 393-395.
- Di Giuseppe, M., Lo Buglio, G., Cerasti, E., Boldrini, T., Conversano, C., Lingardi, V., & Tanzilli, A. (2024a). Defense mechanisms in individuals with depressive and anxiety symptoms: A network analysis. *Frontiers in Psychology, 15*, 1465164. doi: 10.3389/fpsyg.2024.1465164
- Di Giuseppe, M., & Perry, J. C. (2021). The hierarchy of defense mechanisms: Assessing defensive functioning with the Defense Mechanisms Rating Scales Q-Sort. *Frontiers in Psychology, 12*, 718440. doi: 10.3389/fpsyg.2021.718440
- Di Giuseppe, M., Perry, J. C., Lucchesi, M., Michellini, M., Vitiello, S., Piantanida, A., Fabiani, M., Maffei, S., & Conversano, C. (2020). Preliminary reliability and validity of the DMRS-SR-30, a novel self-report based on the Defense Mechanisms Rating Scales. *Frontiers in Psychiatry, 11*, 870. doi: 10.3389/fpsyg.2020.00870
- Fiorentino, F., Lo Buglio, G., Morelli, M., Chirumbolo, A., Di Giuseppe, M., Lingardi, V., & Tanzilli, A. (2024). Defensive functioning in individuals with depressive disorders: A systematic review and meta-analysis. *Journal of Affective Disorders, 272*, 1016-1021. doi: 10.1016/j.jad.2024.04.091
- Freud, A. (1936). Ego and defense mechanisms. In *The writings of Anna Freud* (Vol. 2, pp. 3-191). International Universities Press.
- Freud, S. (1894). The neuro-psychosis of defence. In J. Strachey (Ed. & Trans.), *The standard edition of the complete psychological works of Sigmund Freud*. W.W. Norton & Company.
- Ginot, E. (2009). Neuropsychological trauma, dissociation and the self: The neurobiology of defensive states. *Psychoanalytic Psychology, 26*(2), 196-209.
- Ginot, E. (2015). *The neuropsychology of the unconscious: Integrating brain and mind in psychotherapy*. W. W. Norton & Company.
- Hosgören-Alici, Y., Hasanlı, J., Özkarar Gradwohl, G., Turnbull, O. H., & Çakmak, E. (2023). Defense styles from the perspective of affective neuroscience. *Neuropsychanalysis, 25*(2), 181-189. doi: 10.1080/15294145.2023.2257718
- Kernberg, O. F. (1967). Borderline personality organization. *Journal of the American Psychoanalytical Association, 15*, 641-685. doi: 10.1177/000306516701500309
- Kernberg, P. F. (1994). Mechanisms of defense: Development and research perspectives. *Bulletin of Menninger Clinic, 58*(1), 55-87.
- Kramer, U., Despland, J. N., Michel, L., Drapeau, M., & de Roten, Y. (2010). Change in defense mechanisms and coping over the course of short-term dynamic psychotherapy for adjustment disorder. *Journal of Clinical Psychology, 66*(12), 1232-1241. doi: 10.1002/jclp.20719
- Kramer, U., de Roten, Y., Perry, J. C., & Despland, J. N. (2013). Change in defense mechanisms and coping patterns during the course of 2-year-long psychotherapy and psychoanalysis for recurrent depression: A pilot study of a randomized controlled trial. *The Journal of Nervous and Mental Disease, 201*(7), 614-620. doi: 10.1097/NMD.0b013e3182982982
- Lingardi, V., Colli, A., & Muzi, L. (2018). A clinically useful assessment of patients' (and therapists') mental functioning: M-

- Axis implications for the therapeutic alliance. *Psychoanalytic Psychology*, 35(3), 306-314. doi: 10.1037/pap0000200
- Lingiardi, V., & Madeddu, F. (2023). *I Meccanismi di difesa. Teoria, valutazione, clinica*. Raffaello Cortina Editore.
- Lingiardi, V., & McWilliams, N. (2018). Introduction to the special issue on the Psychodynamic Diagnostic Manual, 2nd edition (PDM-2): Yesterday, today, tomorrow. *Psychoanalytic Psychology*, 35(3), 289-293. doi: 10.1037/pap0000188
- Lingiardi, V., & McWilliams, N. (2025a) (Eds.). *The psychodynamic diagnostic manual – Third edition (PDM-3)*. Guilford Press.
- Lingiardi, V., & McWilliams, N. (2025b). The psychodynamic diagnostic manual, third edition (PDM-3). *World Psychiatry*, 24(3), 442-443. doi: 10.1002/wps.21361
- Lingiardi, V., Muzi, L., & Bornstein, R. (2025). Profile of mental functioning: M-Axis. In V. Lingiardi & N. McWilliams (Eds.), *The psychodynamic diagnostic manual – Third edition (PDM-3)*. Guilford Press.
- Liotti, M., Tanzilli, A., Fiorini Bincoletto, A., Dentale, F., & Lingiardi, V. (2025). How we (do not) trust: Defensive profiles of epistemic trust and its disruptions. *Current Psychology*, 44, 16538-1655. doi: 10.1007/s12144-025-08361-2
- Martino, G., Viola, A., Vicario, C.M., Bellone, F., Silvestro, O., Squadrito, G., Schwarz, P., Lo Coco, G., Fries, W., & Catalano, A. (2023). Psychological impairment in inflammatory bowel diseases: The key role of coping and defense mechanisms. *Research in Psychotherapy: Psychopathology, Process and Outcome*, 26(3), 731. doi: 10.4081/ripppo.2023.731
- Mirabella, M., Di Giannantonio, B., Carone, N., Franco, A., Rugo, M. A., Mazzeschi, C., Wooldridge, T., Lingiardi, V., & Muzi, L. (2025). Filling the emptiness: An empirically supported and psychodynamic-oriented single case study on structural change in binge-eating disorder treatment. *Psychoanalytic Psychology*, 42(4), 224-237. doi: 10.1037/pap0000557
- Northoff, G. (2011). Mechanisms and brain-object and brain-self differentiation neuropsychanalysis in practice: Brain, self and objects. In *Neuropsychanalysis in Practice: Brain, Self and Objects*. Oxford University Press.
- Northoff, G., Bempohl, F., Schoeneich, F., & Boeker, H. (2007). How does our brain constitute defense mechanisms? First-person neuroscience and psychoanalysis. *Psychotherapy and Psychosomatics*, 76(3), 141-153. doi: 10.1159/000099841
- Perry, J. C. (1990). *Defense Mechanism Rating Scales (DMRS)* (5th ed.).
- Perry, J. C. (2014). Anomalies and specific functions in the clinical identification of defense mechanisms. *Journal of Clinical Psychology*, 70(5), 406-418. doi: 10.1002/jclp.22085
- Perry, J. C. (1993). Defenses and their effects. In N. E. Miller, L. Luborsky, J. P. Barber, & J.P. Docherty (Eds.), *Psychodynamic treatment research. A handbook for clinical practice* (pp. 274-307). Basic Books.
- Perry, J. C., & Bond, M. (2012). Change in defense mechanisms during long-term dynamic psychotherapy and five-year outcome. *The American Journal of Psychiatry*, 169(9), 916-925. doi: 10.1176/appi.ajp.2012.11091403
- Perry, J. C., & Bond, M. (2017). Addressing defenses in psychotherapy to improve adaptation. *Psychoanalytic Inquiry*, 37(3), 153-166. doi: 10.1080/07351690.2017.1285185
- Perry, J. C., Bekes, V., & Starrs, C. J. (2022). A systematic survey of adults' health-protective behavior use during early COVID-19 pandemic in Canada, Germany, United Kingdom, and the United States, and vaccination hesitancy and status eight months later. *Preventive Medicine Reports*, 30, 102013. doi: 10.1016/j.pmedr.2022.102013
- Rice, T. R., & Hoffman, L. (2014). Defense mechanisms and implicit emotion regulation: A comparison of a psychodynamic construct with one from contemporary neuroscience. *Journal of the American Psychoanalytic Association*, 62(4), 693-708. doi: 10.1177/0003065114546746
- Silverman, J., & Aafjes-van Doorn, K. (2023). Coping and defense mechanisms: A scoping review. *Clinical Psychology: Science and Practice*, 30(4), 381. doi: 10.1037/cps0000139
- Tanzilli, A., Di Giuseppe, M., Giovanardi, G., Boldrini, T., Caviglia, G., Conversano, C., & Lingiardi, V. (2021a). Mentalization, attachment, and defense mechanisms: A Psychodynamic Diagnostic Manual-2-oriented empirical investigation. *Research in Psychotherapy: Psychopathology, Process and Outcome*, 24(1), 531. doi: 10.4081/ripppo.2021.531
- Tanzilli, A., Giovanardi, G., Patriarca, E., Lingiardi, V., & Williams, R. (2021b). From a symptom-based to a person-centered approach in treating depressive disorders in adolescence: A clinical case formulation using The Psychodynamic Diagnostic Manual (PDM-2)'s framework. *International Journal of Environmental Research and Public Health*, 18(19), 10127. doi: 10.3390/ijerph181910127
- Tanzilli, A., Fiorentino, F., Liotti, M., Lo Buglio, G., Gualco, I., Lingiardi, V., Sharp, C., & Williams, R. (2024). Patient personality and therapist responses in the psychotherapy of adolescents with depressive disorders: Toward the Psychodynamic Diagnostic Manual – third edition. *Research in Psychotherapy: Psychopathology, Process and Outcome*, 27(1), 752. doi: 10.4081/ripppo.2024.752
- Tracchegiani, J., Fontana, A., Benzi, I. M. A., Muzi, L., & Carone, N. (2025). Profiles of childhood maltreatment and defenses: Associations with personality functioning in emerging adulthood. *Journal of Child & Adolescent Trauma*, 18(3), 653-667. doi: 10.1007/s40653-025-00710-4
- Vaillant, G. E. (1971). Theoretical hierarchy of adaptive ego mechanisms: A 30-year follow-up of 30 men selected for psychological health. *Archives of General Psychiatry*, 24(2), 107-118. doi: 10.1001/archpsyc.1971.01750080011003
- Vaillant, G. E. (1977). *Adaptation to Life*. Boston: Little, Brown.
- Vaillant, G. E. (1992). *Ego mechanisms of defense: A guide for clinicians and researchers*. American Psychiatric Association.
- Vaillant, G. E. (2000). Adaptive mental mechanisms: Their role in a positive psychology. *American Psychologist*, 55(1), 89-98. doi: 10.1037//0003-066x.55.1.89
- World Health Organization. (2019). *International classification of diseases for mortality and morbidity statistics* (11th ed.). Available from: <https://icd.who.int/>