

RESEARCH IN DEFENSE MECHANISMS: WHAT DO WE STAND?

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SUMMARY

More than a century is passed since Freud conceived the concept of defense mechanisms. In this article, we retrace the historical evolution of the construct and offer a narrative review of current clinical and empirical literature on its relevance in clinical psychology. Conceptual contributions and empirical findings on the relationship between defenses and personality, as well as between defensive styles and psychopathology (e.g., eating, depressive, and personality disorders) were described. Findings showed that defense mechanisms can help clinicians in understanding the function of patients' symptoms and in tailoring therapeutic interventions. Lastly, we reviewed studies on the potential role of defense mechanisms in unpredictable and changing environmental conditions, such as the outbreak of Covid-19 pandemic. All these studies support the view that defensive functioning is a key topic in the mental health field, and that the further application of reliable and clinically relevant assessment tools is a pivotal future direction in both research and clinical practice.

Key words: defense mechanisms - historical evolution- clinical psychology

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INTRODUCTION

The concept of defense mechanisms, described by Sigmund Freud (1894) as unconscious operations that allow the individual to exclude from awareness unacceptable or excessively distressing internal representations or affects, has been receiving much clinical and empirical attention over the past century, leading clinicians and researchers to consider the role of this personality component as crucial for psychological well-being (Békés et al. 2023, Caputo et al. 2022, Catalano et al. 2020, Carone et al. 2023, Di Giuseppe et al. 2022, Fiorentino et al. 2024, Li et al. 2023, Martino et al. 2023, Ricciardi et al. 2023, Tanzilli et al. 2024, Sergi et al. 2023).

The concepts of defense, conflict, and unconscious mental life have been deeply intertwined throughout the entire history of psychoanalysis (for an extensive review, see Lingardi & Madeddu 2023). For instance, Anna Freud and Joseph Sandler (1985) offered the first classification of these mental processes within a developmental perspective. Freud's contributions were also extensively revised by Melanie Klein (1946), who first studied more primitive defense mechanisms such as splitting and projective identification. Bowlby's attachment theory and Infant Research studies also highlighted the role of defensive processes in children's reactions to separation. As Jervis explained (2001, pp.152-153), "defense mechanisms concern protecting oneself from disappointment, humiliation, and shame, it helps to defend the sense of internal security", highlighting the role of defense mechanisms in maintaining individual's self-esteem.

Recently, the conceptualization of defense mechanisms as unconscious strategies to maintain self-esteem and self-coherence has become widespread, with the additional function of protecting the self or self-esteem and even, in extreme cases, the self-integrity (Cramer 1998). The concept of defense underwent several revisions from a theoretical and methodological perspective. The contribution of George Vaillant, Phoebe Cramer, and John Christopher Perry, along with many other pioneers in the field, has promoted an approach aimed at exploring individuals' defensive styles and functioning applying valid and reliable empirical tools (Békés et al. 2021, Cramer, 1991, Fortunato et al. 2022, Perry, 1990, 2014, Prout et al. 2022). According to these contemporary perspectives, defenses are classified along a hierarchical continuum based on their level of adaptiveness and specific defensive function. At the highest level of the hierarchy, there are mature defenses (i.e. affiliation, altruism, self-observation, humor, etc.), characterized by high level of adaptivity and awareness, which protect the individual from experiencing excessive anxiety without altering the perception of reality and the ability to establish interpersonal relationships. In the middle of the hierarchy, there are neurotic defenses (i.e. repression, displacement, undoing, intellectualization, etc.), characterized by medium level of adaptiveness and partial awareness of internal conflicts or external stressors, which function is to ensure that the individual avoids negative emotion through a minimal distortion of reality. At the lowest level of the hierarchy, there are immature defenses (i.e. acting out, splitting, denial, idealization, etc.), characterized by low level of

adaptiveness and complete unawareness, which protect the individual from experiencing any aspect of internal or external stressful situations with intense reality distortion and, consequently, interpersonal difficulties and psychological distress (Perry & Bond 2017).

Research findings demonstrated that the early definition of defenses (i.e., as totally unconscious ego mechanisms) is adequate for immature defenses, but not entirely appropriate for more adaptive and mature defenses (Di Giuseppe 2024, Di Giuseppe & Lingiardi 2023). These findings also inspired further studies about potential common characteristics between mature defenses and positive coping strategies (Di Giuseppe et al. 2021, Silverman & Aafjes-van Doorn 2023).

As an extension of the concept of emotion regulation, defense mechanisms have been recently conceived as implicit and automatic strategies (i.e. implicit emotion regulation) that work in synergy with explicit and conscious strategies (i.e. explicit emotion regulation) to modulate individual's emotions (Braunstein et al. 2017, Gross 2015, Gugliandolo et al. 2020, Messina et al. 2023, Morelli et al. 2023, Rice & Hoffman 2014). It is worth noting that all these conceptual revisions have contributed to bridge a common language across different psychological approaches to understand defenses as a key factor of the individual's mental functioning and adaptation (Liotti et al. 2023).

Another important issue in contemporary perspectives of defense mechanisms is their assessment. Nowadays, defensive functioning can be measured according to different approaches, including laboratory procedures, projective tests, self-report questionnaires, and observer-rated measures. Among the most used tools for assessing the hierarchy of defense mechanisms, there are the Defense Style Questionnaire (DSQ); (Andrews et al. 1993, San Martini et al. 2004), the Defensive Functioning Scale (DFS) and the Defense Mechanisms Rating Scale (DMRS); (Perry 1990). The DMRS is nowadays considered the most recommended assessment tool because of its strong theoretical background, empirical-based foundation and strong psychometric properties. From the DMRS (Di Giuseppe 2024), Di Giuseppe and colleagues developed two more version of the scale: the Defense Mechanisms Rating Scales-Q-Sort (DMRS-Q); (Di Giuseppe et al. 2014), a computerized observer-rated Q-sort method, and the 30-item Defense Mechanism Rating Scales Self-Report-30 (DMRS-SR-30); (Di Giuseppe et al. 2020, Prout et al. 2022). All the three DMRS measures (rating scale, Q-sort, and questionnaire) showed good-excellent psychometric properties.

In the present study we aimed at reviewing empirical literature supporting the relevance of defense mechanisms as factors to target and monitor in psychotherapy (Gelo et al. 2015, 2020a,b, Gennaro et al. 2019, La Tona et al. 2023, Nesci et al. 2021).

DEFENSES AND PERSONALITY

Personality research has dealt extensively with defense mechanisms. In this field, the questions of self-presentation and motivated behavior are central. As Millon (1996) wrote, these psychic processes "provide the organism with an active means of coping with incongruities between habitual modes of self-conception and new information that is potentially damaging to the self-concept. Only information that is confirmatory, or at least not disconfirmatory, of established cherished ideas passes through the defensive filter for conscious recognition and deliberation." (p. 13). Before him, Freud (1932) compared personality to a crystal which, if subjected to pressure, shatters under precise "cleavage lines" which are not at all arbitrary, but rather predefined by the "invisible" bonds of the crystal (p.172). Moreover, personality determines the ways in which the individual unconsciously gives meaning to their experience and their "characteristic repertoire of defense mechanisms" (Lingiardi & McWilliams 2017). Defense mechanisms and personality appear to be two dimensions of individual functioning that are closely interconnected with each other. Scientific literature has extensively addressed the level of personality organization and personality functioning considering the defensive patterns adopted by individuals. Psychoanalytic theorists posit that personality styles and organizations are strongly related with specific defense patterns (Kernberg 1984, McWilliams 2011). Kernberg's model (1984) evidenced the role of defense mechanisms in the construction of self- and object representations considered at the core of the individual's psychic structure. Thus, defense mechanisms are employed to manage individual affective experience. At an early age, the child experiences pleasant and unpleasant states, from which splitted perception of reality originates. This fragmentation of reality will only be integrated later, with the maturation of the Ego and an increased level of identity integration (Lingiardi & Madeddu 2023). However, the evolutionary transition to a greater integration of the self would not be adequately achieved in the case of personality pathologies, where an archaic vision, intense affects and a distorted self-object representation persists. Kernberg's dimensional model includes three main levels of personality organizations, which are based on the three structural criteria: identity integration vs. diffusion; mature vs. immature defense mechanisms; and reality testing. In the neurotic level of personality organization, a prevalent use of mature and neurotic defenses is predominant (Lingiardi & Madeddu 2023). In contrast, borderline personality organization is characterized by the use of immature defenses (such as splitting and projective identification) and identity diffusion, in which reality testing is mainly preserved (with temporary exceptions in conditions of extreme distress).

Lastly, the psychotic level of personality organization is characterized by lack of ego boundaries, loss of reality testing, and use of immature and primitive defenses (Boldrini et al. 2020). Conversely, mature defenses such as humor, altruism, and sublimation are commonly associated with adaptive functioning (Vaillant 1994, 2000, Bond 2004) and more adaptive personality characteristics (Cramer 1998).

DEFENSES AND PSYCHOPATHOLOGY

Many psychoanalytic theorists have attested that defense mechanisms intervene in individual's everyday life. As Sandler and Joffe (1967) asserted: "We can regard the defense mechanisms as being directed towards the maintenance of well-being, rather than specifically directed against the emergence of anxiety" (p. 513). Cramer (1998) noted that the use of defenses characterizes psychological well-being. Nonetheless, as confirmed by seminal concepts such as the "rigidity" of personality or the "character armor" (Reich 1933), the ability to use defenses according to multiples and various contexts strongly influences the individual's mental health. Thus, when the defensive repertoire is mainly characterized by immature defense, there is an increased risk for the development of different forms of psychopathology (Lingiardi et al. 1999, Bond & Perry 2004, Tanzilli et al. 2022). Empirical evidence (e.g., Colli et al. 2016, Conversano et al. 2023, Fioravanti et al. 2023, Gelo et al. 2015, Lenzo et al. 2020, Muzi et al. 2021) has shown the relevance of defense mechanisms in eating disorders (EDs). For instance, Poikolainen et al. (2001) found that ED patients had higher scores of passive aggression than controls, underscoring their inability to directly express (or even recognize) their affects. Furthermore, sublimation scores were higher in the ED group, supporting the idea that the use of this mechanism fulfills the function of regulating affection through socially accepted behaviors, whereas the undoing defense is used to deny threatening thoughts or feelings. In patients with anorexia nervosa the minimization of the affective expression is achieved by malnourishment. In contrast, in bulimic patients, we assist to the conversion of the common extreme anxiety into bingeing and then undone by purging behaviors. Altogether, these findings highlight the relevance of investigating the relationship between defense mechanisms and EDs to develop more informed guidelines and tailored treatments. Since EDs are complex mental illnesses with high rates of comorbidity, mortality and significant drop-out (Muzi et al. 2020), it is essential to shed light on their etiology.

Significant results also emerged in studies on depressive disorders and defensive functioning. Among individuals with depressive disorders there is an overall less mature defensive functioning than control groups, with fewer mature defenses and more immature

defenses (Fiorentino et al. 2024). Clinical and empirical literature evidenced the importance of defensive functioning as a predictor of change in psychotherapy (e.g., Bond & Perry 2004, Conversano et al. 2023). This observation is particularly relevant in depressed patients, for which psychological treatments are considered as the gold-standard intervention (APA 2022, Lingiardi et al. 2017, Pedroso de Lima et al. 2023). Moreover, several studies underscored the influence of specific defense mechanisms in different personality disorders (Diehl et al. 2014, Maffei et al. 1995, Steiner et al. 2007). Particularly, in histrionic patients there is a prevalence of narcissistic and neurotic defenses, whereas histrionic-borderline patients tend to mainly rely on action and major image-distortion defenses (Lingiardi et al. 1999). Other findings (Perry et al. 2009) suggest an underlying connection between obsessive and narcissistic features, suggesting an association between the obsessive-compulsive personality disorder and narcissistic defenses. To sum up, these empirical findings suggest that personality-disordered patients are more likely to rely on neurotic and immature defenses when compared with healthy controls (Bond & Perry 2004, Galli et al. 2019, Perry et al. 2013).

DEFENSE MECHANISMS IN A CHANGING WORLD

Several studies have already shown that defense mechanisms might be significant predictors of physical and mental health (e.g., Conversano et al. 2020). The Covid-19 pandemic has severely impacted on well-being in the general population, with an increase in the prevalence rates of anxiety, eating, depressive, and post-traumatic symptoms (e.g., Bartolo et al. 2023, Cordella et al. 2023, Gennaro et al. 2023, Giorgianni et al. 2024, Ierardi et al. 2023, Mariani et al. 2021, Morelli et al. 2024, Prout et al. 2020). Worldwide population has faced a series of adverse events, such as the death of loved ones and social isolation. To deal with the effects of the global pandemic, individuals have employed a variety of defensive strategies. Neurotic defenses have been found to play a central role in managing virus-related anxiety (Walker & McCabe, 2021, Prout et al. 2020, Di Giuseppe et al. 2020). At this level of defensive functioning, an example of common defenses used during pandemic was displacement, especially when individuals infected with Covid-19 expressed anger against family members or others for their illness. Moreover, dissociation has been used by healthcare workers to disconnect themselves from negative experiences, memories, thoughts and affect. At a more adaptive levels of defensive functioning, repression allowed individuals to avoid conscious awareness of COVID-19 threats (Giovanardi et al. 2022).

Strictly related to this topic, the role of defensive processes in a clinical changing world after the pan-

demic (e.g., Giordano et al. 2022) seems to be central as well. In fact, empirical studies have highlighted that defensive functioning improves during short-term (Kramer et al. 2010), medium-term, and long-term psychodynamic psychotherapies (Bond, Perry, 2004, Perry & Bond 2012, Presniak et al. 2010). Of note, Hersoug et al. (2002) showed that if symptoms decreased in the early phase of treatment, defenses only improved at a later stage of short-term treatment. In line with studies on the outcomes of short-term treatments, this evidence attests that the change in an individual's defensive functioning occurs in a later treatment stage when compared to symptomatic change, suggesting that a more structural change requires longer-term interventions. Therefore, scientific literature suggests the relevance of targeting defensive mechanisms as a predictor of change in psychotherapy (Babl et al. 2019, Faccio et al. 2022), which implies the need to promote accurate and insightful psychotherapy training (Gennaro et al. 2019, Rocco et al. 2019).

CONCLUSION

The findings reviewed in the present study showed that the concept of defense mechanisms has undergone several revisions over the history of psychoanalysis, but, to date, it still remains a key topic in the mental health field. Adding a careful evaluation of defensive functioning may add a much-needed perspective on both personality disorders and different clinical syndromes (Tanzilli et al. 2021). More research is needed to understand the potential role of specific defense mechanisms in different clinical populations. Moreover, future studies should also explore the congruence or the associations between self-reported defenses and observer-rated measure of this domain of functioning. Lastly, both mature and non-mature defense should be assessed and targeted in psychological and psychotherapeutic interventions to improve individuals' capability to cope with stressful situations, especially in an unpredictable and changing environment.

Acknowledgements: None.

Conflict of interest: None to declare.

Contribution of individual authors:

Valentina Tavoloni & Janet Garofani conceived the idea of this study.

Mariagrazia Di Giuseppe & Laura Muzi contributed to the conceptualization and project administration.

Valentina Tavoloni & Giada Juli wrote the first draft of the study.

Valentina Tavoloni, Janet Garofani, Mariagrazia Di Giuseppe, Giada Juli, Laura Muzi, Marco Innamorati & Maria Rosaria Nappa reviewed and edited the final manuscript.

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