Defense mechanisms and inflammatory bowel diseases: a narrative review

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ABSTRACT

Growing evidence highlights the crucial role of defense mechanisms in the context of chronic diseases. However, few studies have evaluated the impact of these implicit emotion regulation strategies on the adaptation processes related to inflammatory bowel diseases (IBD). This narrative review aimed to explore the role of defense mechanisms in patients with IBD and clarify their association with related psychological and physical symptoms. A literature search was conducted using PubMed and PsycINFO databases to select studies considering defense mechanisms in patients with IBD. Inclusion criteria were English language articles, diagnosis of Crohn's disease or ulcerative colitis, and use of validated assessment instruments specifically related to defense mechanisms. Six studies, including a total of 664 patients, were deemed eligible. Immature defense mechanisms were commonly detected in IBD patients, with significant effects on psychological and physical health. Significant associations were found between defense mechanisms, perceived health-related quality of life (HR-QoL), and psychological distress. Findings suggested that immature defense mechanisms may negatively impact the management of disease, leading to lower perceived HR-QoL, decreased treatment adherence, and increased risk of psychopathological symptoms. Considering these findings, we suggest that an integrated clinical evaluation, including an in-depth investigation of defense mechanisms, may promote more effective psychological treatments and improve psychological well-being in patients suffering from IBD.

Key words: inflammatory bowel diseases, quality of life, clinical psychology, implicit emotional regulation, defense mechanisms.

Introduction

Scientific evidence shows the crucial role of clinical psychological factors related to chronic illness (Akyirem *et al.*, 2022; Cemin *et al.*, 2024; Kemp *et al.*, 2022; Kütmeç Yilmaz & Kara, 2021; Jiakponna *et al.*, 2024; Marks *et al.*, 2023; Moneta & Kaechele, 2023). Psychological distress may be associated with difficulties in disease management and suffering, leading to worsened health outcomes. Similarly, chronic illness may cause emo-

tional distress and life changes, affecting the individual's health-related quality of life (HR-QoL) (Caputo *et al.*, 2022; Giorgianni *et al.*, 2024; Martino *et al.*, 2018; Martino *et al.*, 2023; Masci *et al.*, 2022; Ricciardi *et al.*, 2024; Sergi *et al.*, 2023; Sergi *et al.*, 2024; Sergi *et al.*, 2025). This concept encompasses physical, psychological, and social dimensions, offering a comprehensive understanding of the patient's perception and chronic disease outcomes. HR-QoL evaluation may favor healthcare interventions and improve long-term outcomes (Hwang & Oh, 2024; Silvestro *et al.*, 2024; Spatola *et al.*, 2024).

Over the past half-century, empirical research has shown the impact of defense mechanisms on psychological functioning and perceived well-being, personality organization, and treatment outcomes (Békés *et al.*, 2023; Conversano *et al.*, 2023; Di Giuseppe *et al.*, 2024; Perry & Bond, 2012).

It is known that defense mechanisms are automatic psychological mechanisms that mediate individuals' responses to emotional conflicts and internal and external stressors (Mrozowicz-Wrońska, 2023; Perry, 2014; Vaillant, 1997). These unconscious operations were deeply studied by Sigmund Freud, exploring subconscious ego defenses and making them an important aspect of psychoanalysis (Cramer, 2015a). Subsequently, defense mechanisms were further defined and operationalized, gaining enough recognition to be incorporated as an optional evaluation axis in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1994; Cramer, 2015b; Kernberg, 1988). This classification was mainly based on the Defense Mechanisms Rating Scale (DMRS), a hierarchical model developed by Perry and further revised by Di Giuseppe and colleagues, nowadays considered the gold-standard theoretical framework for the empirically based assessment of defenses (Békés *et al.*, 2021; Di Giuseppe & Perry, 2021; Perry, 1990; Prout *et al.*, 2022). The DMRS includes thirty defense mechanisms organized into seven levels with distinct defensive functions, conceptual similarities, and clinical and empirical relationships. Defense levels are hierarchically ordered from least to the most adaptive, based on studies of their association with overall adaptive functioning: 1) action defense level; 2) major image-distorting defense level; 3) disavowal defense level; 4) minor image-distorting defense level; 5) neurotic defense level; 6) obsessive defense level; and 7) high-adaptive defense level (Perry *et al.*, 1993; Perry *et al.*, 1998; Skodol & Perry, 1993).

The concept of defense mechanisms is currently regarded by clinicians from various theoretical orientations as crucial for elucidating psychological development and functioning (Blanco *et al.*, 2023; Hentschel *et al.*, 2004). Primarily rooted in the psychoanalytic field, defenses are nowadays considered crucial components of emotion regulation and attachment (Békés *et al.*, 2021; Braunstein *et al.*, 2017; Rice & Hoffman, 2014; Richardson *et al.*, 2024; Sergi, 2024; Tanzilli *et al.*, 2021; Tanzilli *et al.*, 2022). A relevant scientific debate worth mentioning concerns the difference between coping and defense mechanisms. Folkman and Lazarus (1980) defined coping strategies as the conscious process employed by individuals to cope, moderate, or reduce the impact of stressful events. The concept of defense mechanisms, given their adaptive nature to stress, could be associated with coping strategies. Cramer (2006) suggested that coping strategies are conscious processes, voluntarily activated, whereas defense mechanisms typically operate unconsciously. Despite the fundamental distinction between defense mechanisms and coping, primarily based on their unconscious or conscious nature, these two domains have gained empirical attention through the validation of clinical scales. In this regard, Silverman and Aafjes-van Doorn (2023) proposed an integrative model of defense mechanisms and coping strategies, situating them on a continuum ranging from unconsciousness to consciousness and denoting a consistent relationship between maladaptive coping and immature defense mechanisms.

In the context of chronic diseases, defense mechanisms may influence the individual's illness adjustment process, impacting both physical and mental health (Abram, 1972; Di Giuseppe, 2024; Di Giuseppe & Conversano, 2022; Malone *et al.*, 2013; Neeleman *et al.*, 2004). Inflammatory bowel diseases (IBD) include a group of heterogeneous disorders involving chronic and recurrent inflammation of the gastrointestinal tract with unknown etiopathogenesis (Li *et al.*, 2024; Peyrin-Biroulet *et al.*, 2016). The main symptoms of IBD include abdominal pain, diarrhea, rectal bleeding, urgency, and weight loss (Nóbrega *et al.*, 2018). IBD mainly include Crohn's disease (CD) and ulcerative colitis (UC), which differ in disease location and histopathological features (Kobayashi *et al.*, 2020; Roda *et al.*, 2020; Saez *et al.*, 2021; Saez *et al.*, 2023). On the one hand, UC affects the mucous layer of the colon and is associated with severe pain, bleeding, and diarrhea. On the other hand, CD is a transmural disease often associated with granuloma formation, possibly occurring throughout the gastrointestinal tract (Saeid Seyedian *et al.*, 2019). In the United States, it is estimated that about 1.5 million people suffer from chronic intestinal inflammation, causing significant suffering, mortality, and economic burden (Gajendran *et al.*, 2018). IBD are typically diagnosed between the age of 20-40 years, with possible onset at any age, affecting men and women equally (Saeid Seyedian *et al.*, 2019) and probably associated with potentially life-threatening conditions, including primary sclerosing cholangitis (Palmela *et al.*, 2018), blood clotting (Lagrange *et al.*, 2021), colorectal and extracolonic cancers (Gao *et al.*, 2023; Shah & Itzkowitz, 2022). IBD present an intermittent course, alternating periods of symptomatic presentation and remission (Cho *et al.*, 2022; D'Amico *et al.*, 2024). The unpredictability of transitions between exacerbation and remission phases may impact the psychosocial functioning of patients, affecting control over the management of daily life (Cooper *et al.*, 2010; Shorey *et al.*, 2021; Sugaya, 2024).

The impact of stress plays a critical role as a potential trigger for symptomatic exacerbation, although the association between stress and inflammation in IBD is an object of current research (Ge *et al.*, 2022; Murdaca *et al.*, 2022; Rozich *et al.*, 2020). Moreover, empirical evidence highlighted the presence of symptoms of anxiety and depression, given the impairment of quality of life and the reduction in social function (Barberio *et al.*, 2021; Bisgaard *et al.*, 2022).

Thus, defense mechanisms may be involved in the management and course of chronic conditions, such as in the adaptation processes (Fiorentino *et al.*, 2024). In line with evidence, the purpose of this narrative review was to analyze the association between defense mechanisms and IBD to promote adequate support for patients suffering from IBD, coping with stress and developing therapeutic strategies finalized to improve positive psycho-physical equilibrium.

Methods

This narrative review provides a comprehensive analysis and rigorous overview of the role of defense mechanisms in the field of IBD. The chosen approach allowed the synthesis of high-level

contributions reporting relevant perspectives and empirical findings. Original studies were identified by searching in the PubMed and PsycINFO databases. The keywords selected for the search were: ("defense mechanisms" OR "defense style" OR "defensive functioning" OR "defensive strategies") AND ("inflammatory bowel disease" OR "IBD" OR "ulcerative colitis" OR "UC" OR "Crohn's disease" OR "CD").

Studies were included if they analyzed samples of patients who received diagnoses of IBD and used validated assessment instruments to evaluate defense mechanisms. Only research studies evaluating the link between defense mechanisms and IBD were included, while conference abstracts, qualitative research, reviews, book chapters, and case reports were excluded.

After extracting results from databases, duplicates were removed, and the records were screened based on title and abstract. Finally, only full-text manuscripts in English were analyzed, meeting the described inclusion criteria. The analysis of the reference lists of the entered studies showed no further results. Data extracted also reported authors' names, publication date, country, sample size, defense mechanisms assessment instruments, and main findings (Table 1).

Although strict inclusion criteria were applied to include relevant literature on the topic, this review has a narrative approach, offering a conceptual and interpretative framework to highlight findings and explore the role of defense mechanisms in IBD.

Results

Through the initial search, 413 studies were identified. 15 articles were excluded as duplicates. Three hundred and ninety-eight records were reviewed considering title and abstract, and 388 were excluded due to low accordance with the scope of this narrative review. 10 studies were identified and reviewed. 4 papers were removed for the following reasons: 1 was a book chapter, and 3 did not include validated instruments to assess defense mechanisms. Finally, 6 studies were selected and reported in Table 1. The results were managed according to the aim of this review.

Characteristics of included studies

All included studies enrolled patients affected by IBD, including a total of 661 subjects. Rubino *et al.* (1999) included only patients diagnosed with CD, while the remaining five studies also included patients with UC (Hyphantis *et al.*, 2005; Hyphantis *et al.*, 2010; Leone *et al.*, 2019; Martino *et al.*, 2023; Smith *et al.*, 1995). Each study reported specific criteria for the diagnosis of IBD and enrolled adult patients (≥18). Two contributions compared patients with IBD with other groups. Particularly, Rubino *et al.* (1999) included a group of patients (n=34) with panic disorder and a control group (n=34), while Smith *et al.* (1995) included only a control group composed of healthy subjects (n=43).

Regarding assessment instruments, Smith *et al.* (1995) administered the Meta-Contrast Technique (MCT), analyzing several defensive signs, including discontinuity and primitive defenses (Fribergh *et al.*, 1992).

Rubino *et al.* (1999) used the Defense Mechanism Test (DMT) to assess the main defensive mechanisms in patients suffering from CD (Ekehammar *et al.*, 2002). The DMT represents a projective technique consisting of 22 items providing the analysis of: repression, isolation, denial, reaction formation, identification with the aggressor, intro-aggression, introjection, polymorphous identification, projection, regression, stereotypy, discontinuity, and lack of recognition of the threat.

Hyphantis *et al.* (2005; 2010) used the Defense Style Questionnaire (DSQ) (Bond, 1983, 2004). This rating scale is composed of 88 items evaluating twenty-five defense mechanisms and four defensive styles: maladaptive action, image distorting, self-

Table 1. Included studies.

Authors	Year	Country	Sample	Measure	Main findings
Smith *et al.*	1995	Sweden	61 CD 24 UC 43 CG	MCT	The subgroup of patients diagnosed with CD presenting inflammation limited to the colon (n=15) reported higher immature defensive style rates than other groups.
Rubino *et al.*	1999	Italy	34 CD 34 panic disorder 34 CG	DMT	Isolation, barrier-isolation, the disappearance of the threat, denial, and polymorphous identification were the prevalent defense mechanisms detected through the DMT in patients diagnosed with CD.
Hyphantis *et al.*	2005	Greece	39 CD 33 UC	DSQ	Results showed a significant difference in maladaptive action defense style between patients with CD and UC (42.4% *vs.* 20.5%; p>0.05). According to DSQ results, patients with CD presented higher scores in autistic fantasy, consumption, and pseudo-altruism. Autistic fantasy was correlated with the disease active (p=0.029), while projection was observed in patients undergoing surgical treatment (p=0.027).
Hyphantis *et al.*	2010	Greece	64 CD 121 UC	DSQ LSI	Maladaptive action, defensive style, displacement, and reaction formation were strongly correlated with poor perceived HR-QoL. Particularly, regression analysis showed that reaction formation was inversely associated with HR-QoL.
Leone *et al.*	2019	Italy	95 CD 106 UC	DMI	According to DMI scores, no significant differences emerged in defensive styles between patients diagnosed with UC and CD or based on disease status (active *vs.* remission). Reversal defensive style was the most frequent defensive style.
Martino *et al.*	2023	Italy	33 CD 51 UC	DMI	The reversal style was the widest-represented defensive style. Maladaptive defense mechanisms were associated with psychological distress, depression, and anxiety. Patients with UC showed higher scores of reversal style (p=0.04) than the CD group, while projection and turning against objects were observed more frequently in patients with CD (p=0.01; p=0.02).

CG, control group; CD, Crohn's disease; DMT, Defence Mechanisms Test; DMI, Defense Mechanisms Inventory; DSQ, Defense Style Questionnaire; HR-QoL, health-related quality of life; LSI, Life Style Index; MCT, Meta-Contrast Technique; UC, ulcerative colitis.

sacrificing, and adaptive styles. Moreover, Hyphantis *et al.* (2010) included the Life Style Index (LSI) as a self-report instrument evaluating eight defense mechanisms: denial, regression, repression, compensation, intellectualization, displacement, projection, and reaction formation (Conte & Apter, 1995).

Finally, two studies (Leone *et al.*, 2019; Martino *et al.*, 2023) utilized the Defense Mechanism Inventory (DMI) based on a five-factor structure model assessing the subject's dominant defensive style. Particularly, the DMI provides for an empirical analysis of turning against the self (TAS), turning against the object (TAO), projection (PRO), principalization (PRN), and reversal of affect (REV) styles (Gleser & Ihilevich, 1969).

Defense mechanisms in IBD

All included studies highlighted the role of defense mechanisms in influencing individuals' adaptation to IBD. Smith *et al.* (1995), through a comparative analysis, found a small group of CD patients presenting inflammation restricted to the colon (n=15), showing higher scores in primitive defense mechanisms than patients with diffuse inflammation (CD patients, n=46; UC patients, n=24) and control group (n=43). Particularly, CD patients with primarily colon inflammation presented a pessimistic future perspective and a tendency to avoid conflicts through regression. Rubino *et al.* (1999) highlighted patients with CD showed a significant presence of defense of lack of recognition of the threat than patients with panic disorder. Moreover, the CD group presented a higher number of stereotypies than the control group and higher scores of maladaptive defense style, regression, and isolation.

Hyphantis *et al.* (2005) found that patients with CD exhibited a higher maladaptive action style than the group with UC (42.4% *vs.* 20.5%; p>0.05). Particularly, patients with CD reported higher DSQ scores for autistic fantasy (5.21±3.31 *vs.* 3.64±2.86; p=0.044), consumption (3.71±2.0 *vs.* 2.50±1.4; p=0.004), and pseudo-altruism (7.91±1.78 *vs.* 6.20±2.09; p=0.028). Autistic fantasy is reflected in the tendency to excessive daydreaming to defend the ego from external threats; consumption represents the tendency to seek oral satisfaction through behaviors such as eating, drinking or smoking, while pseudo-altruism denotes the need to be perceived as compassionate, supportive, and devoid of anger. Both CD and UC patients showed a more substantial presentation of autistic fantasy in the active phases of the disease (p=0.029), while projection was associated with patients undergoing surgical treatment. No significant results emerged concerning the duration of the disease. Hyphantis *et al.* (2010) revealed that maladaptive action style, displacement, and reaction formation were associated with perceived HR-QoL of patients with IBD. Multiple regression analysis showed that the effect of reaction formation on HR-QoL was stable when controlling for other variables. This study highlighted that the tendency to present reaction formation was associated with lower HR-QoL. This led patients to avoid thoughts and feelings associated with their chronic condition, negatively impacting patients' compliance and adherence to medical treatments.

Leone *et al.* (2019) highlighted REV as the most presented defense style, including denial, reaction formation, and repression, influencing HR-QoL and mental health. Comparative analysis did not show significant differences between active disease and remission phases or between UC and CD.

Finally, Martino *et al.* (2023), administering the DMI, highlighted a significant association between defensive styles and HR-QoL, alexithymia, depression, and anxiety. Particularly, PRN denoting a mature defensive style (including rationalization, isolation, and intellectualization) was correlated with higher mental well-being (p<0.001) and lower depressive symptoms, anxiety, and alexithymia (p<0.001). TAO (including displacement and identification with the aggressor) was associated with lower mental health (p<0.005) and the presence of alexithymia (p<0.005). A significant difference emerged between patients with UC and CD. Moreover, patients with UC presented higher levels of REV (57.2 *vs.* 50.9; p=0.004), while patients with CD showed higher scores of TAO (52.7 *vs.* 46.6; p=0.001) and PRO (53.7 *vs.* 49.1; p=0.001). Overall, these results showed that specific defensive styles may influence the onset and course of IBD, impacting the way patients cope with threatening events.

Discussion

The aim of this review was to provide an overview of the influence of defense mechanisms on the course of IBD. Through the literature search, six main studies emerged as significantly related to the main themes of the present study. These contributions were analyzed regarding the assessment instruments used and the main results to highlight the weight of defense mechanisms in the field of chronic conditions such as IBD.

In line with this purpose, our findings suggest that defense mechanisms were associated with highly relevant dynamics such as illness management and perceived HR-QoL. Particularly, immature defense mechanisms such as autistic fantasy, reaction formation, and lack of recognition of the threat were related to mental distress, acute symptoms, and low HR-QoL. These results appeared in line with current literature, highlighting that defense mechanisms had a relevant role among chronic diseases, influencing adherence to medical treatment and, consequently, physical and psychological health outcomes (Zimmerman *et al.*, 2019). Particularly, the diagnosis and treatment of IBD represent a life-altering and stressful event, producing psychological challenges for subjects' adaptation processes (Di Giuseppe *et al.*, 2022; Dorrian *et al.*, 2009; Sajadinejad *et al.*, 2012).

Furthermore, our findings indicate that REV, the tendency to distort reality as a means of shielding oneself from unacceptable thoughts, is the most prevalent defensive style. Denial, reaction formation, and repression are common coping mechanisms for emotional distress related to chronic illness. However, their effects on disease self-management require further research. This tendency to minimize threatening content could favor patients' adaptation, but in the long term, it could result in a decreased awareness of disease-related needs, possibly leading to poor contact with internal and external reality (Marchini *et al.*, 2018; Martino *et al.*, 2020a). In a recent review, Patierno *et al.* (2023) elucidated how denial of contents related to a physical disease represents an adaptive defense in some cases, protecting patients from emotional stress related to their illness. However, high levels of minimization or denial were also associated with diagnostic delays, poor self-management of illness demands, low adherence, and treatment refusal.

Considering patients with specific diagnoses (UC *vs.* CD) or disease phases (active *vs.* remission), this review highlighted controversial results. Although data were not always aligned, some studies indicated that patients with CD presented higher levels of immature defensive mechanisms compared to patients with UC. Particularly, Martino *et al.* (2023) found TAO and PRO as the most frequent defensive styles in patients with CD. Data open an interesting discussion since healthy subjects exhibited these de-

fensive styles associated with a lack of ability to recognize and describe feelings, difficulty in distinguishing emotional experience from bodily signals, and thinking style that focuses on external events (alexithymia) and psychological distress (Ziadni *et al.*, 2017). In a psychosomatic framework, defense mechanisms can be viewed as relatively stable traits that may influence the gut-brain axis and increase the risk of developing specific diseases, such as CD and UC (Martino *et al.*, 2020b). However, future research should further explore these factors to better understand the defensive profiles of patients with IBD.

Regarding the association between defensive functioning and HR-QoL, the results were not surprising: evidence confirmed the significant role of immature defensive style in different chronic diseases, leading to a lower perceived HR-QoL. Amaslidou *et al.* (2023) reported lower perceived mental HR-QoL in patients with multiple sclerosis presenting maladaptive defense styles compared to those with adaptive defense mechanisms. Albuquerque *et al.* (2011), analyzing a sample of patients with chronic obstructive pulmonary disease, found that immature defense mechanisms such as denial and somatization were related to low HR-QoL. In a systematic review, Di Giuseppe *et al.* (2018) highlighted that patients with cancer reported better prognosis and a higher ability to adapt to their disease when they showed a higher prevalence of mature defense mechanisms. Berk (2020) found that in fibromyalgia syndrome, immature defenses such as pseudo-altruism, displacement, and somatization were associated with severe disease presentations. Hyphantis *et al.* (2008) reported that patients with a diagnosis of multiple sclerosis showed higher rates of maladaptive defense mechanisms than healthy subjects, providing for the onset of psychological distress. Evidence suggests that defense mechanisms are significant clinical psychological features that should be carefully considered in clinical settings, especially for patients with chronic illnesses.

Notably, none of the included studies employed an assessment tool based on the current gold-standard framework for evaluating defense mechanisms. This methodological gap underscores the need for future research to adopt DMRS-based measures to ensure a more consistent and comprehensive assessment of defensive functioning in patients with IBD. Furthermore, understanding how implicit emotion regulation strategies influence chronic disease management could provide valuable insights for tailoring psychological interventions.

Future research should also investigate how defense mechanisms change over time and vary with disease severity. This can be accomplished using validated, scientifically based instruments, possibly selecting simpler versions to facilitate patients' evaluation. These assessments should be complementary to the gold-standard clinical interviews in clinical settings (Di Giuseppe & Tanzilli, 2025).

Defense mechanisms are essential features of personality, influencing the management of chronic diseases and affecting their course and outcomes. We recommend adopting multidisciplinary approaches in clinical settings to enhance access to psychotherapeutic interventions, particularly for patients exhibiting maladaptive defense mechanisms and various psychopathological signs or symptoms. Promoting clinical psychological treatment for patients with IBD, focused on maladaptive defensive styles and their outcomes, could enhance compliance and adherence to treatment.

The patients' perspective on their health and coping with disease-related challenges through defense mechanisms may significantly influence treatment adherence. In clinical settings, integrating the assessment of implicit emotion regulation strategies and implementing patient-centered psychological interventions represent vital steps toward a biopsychosocial approach aimed at promoting physical and psychological well-being.

Strengths and limitations

This narrative review explores the link between defense mechanisms and IBD, highlighting how implicit emotion regulation strategies may influence disease management. While research on defensive functioning in chronic diseases has been previously conducted, this review offers an in-depth and valuable perspective on how defense mechanisms operate in IBD.

Nevertheless, some limitations must be considered. The limited number of included studies may affect the covered perspectives. Another limitation is represented by the different administered instruments in the selected studies (MCT, DMT, DSQ, LSI, DMI), leading to a high heterogeneity in the results and complicating direct comparisons. This heterogeneity underscores the need for further research using the gold-standard approach to evaluate defense mechanisms.

Moreover, none of the included studies presented a longitudinal design, so it was not possible to consider a direct relationship between implicit emotion regulation strategies and disease outcomes. However, this review is a first step towards a deeper understanding of the defense mechanisms evaluation in IBD management, offering clinicians tools for an even more modern and complete treatment of patients with IBD.

Conclusions

This review highlights the importance of clinical psychological evaluations for patients with IBD, including the assessment of implicit emotional regulation strategies. Patients with IBD may present maladaptive defense mechanisms, leading to a lower perceived HR-QoL and an increased risk of psychopathological distress. Maladaptive defense mechanisms may be considered and treated through the implementation of tailored clinical psychological interventions. Additionally, investigating the progression of defensive mechanisms across different IBD stages could reveal insights into how patients adjust to intermittent disease phases. Standardized tools, such as DMRS-based measures, may refine evaluations of implicit emotion regulation strategies, providing crucial knowledge to develop person-centered interventions. Future research should employ controlled and longitudinal designs to determine whether interventions in patients with IBD can effectively enhance physical and psychological well-being (Ridolfi, 2024; Rossi *et al.*, 2024). Incorporating these findings into multidisciplinary approaches will further advance biopsychosocial models of care, ultimately improving adherence and long-term health outcomes. Finally, the evaluation of defense mechanisms provides a clearer understanding of patients' personality functioning, promoting a deeper insight into care needs. This understanding may support tailored interventions aimed at improving treatment responses, reducing exacerbations, and increasing the well-being of patients with chronic diseases, such as IBD.

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