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Review

PERSONALITY AND EMOTION REGULATION IN CHRONIC ILLNESS

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SUMMARY

Psychological functioning has a significant impact on the body since and represents a critical component in the management of chronic diseases, potentially affecting their onset, prognosis and trajectory. Chronic conditions may affect the increase of emotional distress, potentially leading to autonomic function dysregulation of both the sympathetic nervous system and the hypothalamic-pituitary-adrenal. The present paper aims to summarize current research on the role of personality and emotion regulation in determining both physical and mental well-being of chronic patients with particular attention to cancer, psoriasis and asthma.

Findings highlighted that despite their distinct clinical manifestations, cancer, chronic respiratory diseases, and psoriasis share important common features. In addition to the physical impact they have on patients, they show meaningful, bidirectional relationships with psychological functions and inner processes. Across these pathologies, maladaptive emotion regulation strategies, immature defense mechanisms, and alexithymia were consistently found associated with poorer quality of life, reduced adherence to treatment and, consequently, worse prognoses.

Key words: *chronic diseases – personality - emotional regulation - well-being - integrated care*

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INRODUCTION

Psychological factors, including personality and emotion regulation, have been acknowledged to play a key role in determining both physical and mental well-being (Békés et al. 2023; Rossi et al. 2024; Silvestro et al. 2023). Psychological functioning exerts a significant influence on the body and represents a critical component in the management of chronic diseases, potentially affecting their onset, prognosis and trajectory (Catalano et al. 2020; Di Giuseppe & Conversano 2022; Martino et al. 2023). Research on chronic diseases has emphasized a bidirectional relationship between persistent inflammatory processes and an increased risk of psychopathology (Antunes et al. 2022; Klocek & Řiháček 2023). The link between psychological distress and immune system alterations mediated by neuroinflammatory processes highlights the critical role of clinical psychological factors (Dantzer 2018; Murdaca et al. 2022). Chronic conditions may affect the increase of emotional distress, potentially leading to autonomic function dysregulation of both the sympathetic nervous system and the hypothalamic-pituitary-adrenal (HPA) axis. This dysregulation results in elevated cortisol and pro-inflammatory cytokines, which can further exacerbate inflammation in chronic immune conditions (Goerlich & Votinov 2023; Guilbaud 2025). From this interdisciplinary perspective, examining core psychological features and processes becomes essential in the treatment of chronic diseases for tailoring therapeutic interventions that consider the effect of mental functioning on the course of the disease (Ridolfi, 2024; Silvestro et al. 2025).

Cancer is a generic term encompassing a large group of diseases that can affect any part of the body. A defining feature of cancer is the uncontrolled proliferation of abnormal cells that grow beyond their usual boundaries, invade adjacent tissues or even spread to other organs (i.e., metastasis) (WHO 2025a). Cancer is a leading cause of death globally – responsible for nearly one in six deaths, in 2020 – with breast, lung, colon/rectum and prostate cancers being the most common (Ferlay et al. 2020). Symptoms, physical difficulties and medical treatments seriously challenge patients' quality of life and psychological well-being; consequently, stress and psychological risk factors can hinder recovery, triggering a downward spiral (Barre et al. 2018). Recent studies have shown that specific personality traits, such as neuroticism and introversion, are associated with the course of the disease and survival probability in cancer patients (Beresford et al. 2006; Eysenck 1994; Koole & Rothermund 2011). Evidence suggests that Type C Personality (passive individuals, incapable of helping themselves, strongly focused on other people, and who frequently repress their emotions) may be a risk factor in the worse progression of the illness (Di Giuseppe et al. 2019; Rymarczyk et al. 2020). However, findings on cancer and personality need to be further explored, as other studies have reported no significant associations between personality traits and cancer progression (e.g., Jokela et al. 2014). Emotion regulation seems to be crucial in moderating the individual response to the stressful life condition of living with a chronic disease (Brown et al. 2022; Marchini et al. 2021). Implicit

emotion regulation, in particular, has been demonstrated as highly relevant in determining greater quality of life, adherence to treatment and positive prognosis in cancer patients (Porcerelli et al. 2017; Zimmerman et al. 2019). Defense mechanisms, an important aspect of implicit emotion regulation, mediate the individual's reaction to emotional conflicts and to internal or external stressors (Di Giuseppe et al. 2024a; 2024b). The maturity level of individual defensive functioning has significant impact on illness management and its collateral physical and psychological effects (Hyphantis et al. 2011, 2016). As highlighted by Di Giuseppe and colleagues (2018), the use of mature defenses is related to higher physical and emotional functioning, acceptance of social support and survival rate, whereas the use of neurotic defenses, in particular repression, is related to psychosomatic symptoms, passive decisional preferences and worse physical and emotional health-related quality of life. In some studies, the frequent use of repression seems to impair endocrine and immune functions, and this has been found related to shorter disease-free intervals and a more unfavorable cancer staging at endpoint (Boscarino & Figley, 2009; Kreitler et al. 1993). Among immature defenses, denial is associated with low anxiety and better emotional functioning, at the expense of lower adherence to treatment and positive prognosis in cancer patients, while action defenses, such as passive aggression and help-rejecting complaining, foster negative attitudes toward social support and predicted sleep disturbance and lower survival probability (Di Giuseppe et al. 2018).

Chronic respiratory diseases (CRDs) are long-term, non-communicable clinical conditions that affect the airways and/or lungs (WHO, 2025b). Some of the most common are asthma, chronic obstructive pulmonary disease (COPD), respiratory allergies, and pulmonary hypertension. Patients affected by CRDs show a significant reduction in quality of life and an increased vulnerability to psychopathologies. For instance, individuals with moderate to severe allergic asthma are particularly prone to anxiety and depression, due to the evident difficulty in managing symptoms, along with sudden exacerbations (Giorgianni et al. 2024; Roche et al. 2022); individuals with hymenoptera venom allergy (an immunoglobulin E-mediated hypersensitivity condition triggered by stings from bees or wasps that can trigger urticaria, angioedema or even anaphylaxis) may experience significant psychological distress, anxiety or social isolation, especially if they are (or feel) constantly at risk, such as outdoor workers (Höfer et al. 2023; Schoeben et al. 2020; Toletone et al. 2017). Despite these findings, the role of psychological features in respiratory diseases is still understudied. Topp and colleagues (2016) reported that personality traits and mental symptoms (such as anxiety and depression) influence the patients' perception of their health status, thereby affecting overall quality of life. A recent pioneering study by Martino and colleagues (2025) has highlighted the mediating role of defense mechanisms in the physical well-being of patients with chronic immune-mediated respiratory diseases. In line with prior research suggesting the protective effect of emotional regulation from psychological distress, the use of immature defenses was more frequent in patients that reported higher levels of depression, anxiety, and alexithymia, while the use of mature defenses was more frequent in patients who showed less distress and better psychological health. Interestingly, patients who showed greater physical discomfort also reported a more adaptive defensive functioning, suggesting that the need to deal with disadvantaged conditions, such as severe chronic diseases, can activate resiliency and develop effective emotional regulation strategies to counteract the physical effects of their disease.

Psoriasis is a chronic, relapsing, non-communicable inflammatory dermatological disease that provokes lesions on the skin. The most common type, called plaque psoriasis (psoriasis vulgaris), is characterized by slightly elevated reddish patches or papules (solid elevations) covered with silvery-white scabs of dead skin. In the most severe forms of the disease, a majority of the skin surface may be involved by inflamed lesions (WHO, 2016). Epidemiological data on psoriasis are still limited and incomplete (Michalek et al. 2017) but, realistically, the spread of the disease is underestimated (Parisi et al. 2020). Psoriasis negatively impacts individuals' physical and psychological well-being and their quality of life (e.g., Bhosle et al. 2006; Obradors et al. 2016). Research revealed that psoriatic individuals are at high risk of developing a wide range of diseases including diabetes, Crohn's disease, metabolic syndromes, cardiovascular diseases, and cancer (e.g., Ahlehoff et al. 2012; Miller et al. 2013; Wakkee & Nijsten, 2009; Shaharyar et al. 2014). Moreover, several studies highlighted that psoriatic individuals are particularly vulnerable to depression, anxiety, and even suicidal ideation (e.g., Dalgard et al. 2015; Dowlatshahi et al. 2014; Englbrecht et al. 2021; Golpour et al. 2012; Martínez-Ortega et al. 2019; Pompili et al. 2016; Sahi et al. 2020; Takeshita et al. 2017). They often report remarkable levels of distress in different life domains, especially in interpersonal and work contexts, due to possible exposure to social exclusion, stigma, and discrimination, which exacerbate negative affectivity, maladaptive thoughts, unfavorable self-perceptions (e.g., in terms of low self-esteem and negative body image), and dysfunctional behavior patterns (e.g., Jankowiak et al. 2020; Meneguin et al. 2020; Stewart et al. 2021).

Consistent with robust evidence showing the crucial role of personality in the etiology, prognosis, and treatment responsiveness of different clinical conditions such as psychiatric disorders (e.g., Boldrini et al. 2020; Kavanagh et al. 2021), cardiovascular (Cruciani et al. 2025; Goetzmann et al. 2020) and other chronic

diseases (Galli et al. 2019; Seto et al. 2019), research suggested significant associations between personality and psoriasis. In particular, high scores on schizoid, avoidant, dependent, compulsive, passive-aggressive, paranoid, and histrionic personality disorders were reported by psoriatic patients (Mazzetti et al. 1994; Rubino et al. 1995; Vari et al. 2017). Recent studies (e.g., Aguayo-Carreras et al. 2020; Lim et al. 2018; Sanchez-Diaz et al. 2023) have also highlighted a remarkable prevalence of Type D personality (distressed, characterized by high levels of negative affectivity and social inhibition) among different clinical populations of patients who reported moderate to severe forms of psoriasis. Furthermore, this personality type appears to be a marker for an increased risk of poor quality of life in psoriatic patients (Sanchez-Diaz et al. 2023).

In general, psoriatic individuals, especially with maladaptive personality traits (e.g., Aguayo-Carreras et al. 2021), may show relevant difficulties recognizing, modulating, and adaptively expressing emotions, which negatively influence their global functioning. Recent studies have explored emotion regulation processes in this population: compared to control groups, individuals suffering from psoriasis tend to rely more heavily on dysfunctional strategies, such as emotional suppression and inhibition of emotional expression (Ciuluvica et al. 2014, 2019; Vari et al. 2013). Notably, patients with dermatological diseases are frequently alexithymic, struggling in identifying and distinguishing emotions from physiological or interoceptive sensations, as well as in communicating them (Holmes et al. 2022; Tang et al. 2022). Recent studies have confirmed that maladaptive emotion regulation is strongly associated with psoriasis, particularly affecting their psychological health and well-being (e.g., Innamorati et al. 2016; Panasiti et al. 2020; Samela et al. 2025).

DISCUSION

The present study provides an overview of the complex network of mutual influences between chronic diseases and psychological factors, with a specific focus on personality and emotion regulation. Mutual influences, because assuming exclusively a psychosomatic or a somatopsychic perspective may fail to grasp the multifaceted nature of pathology and its complications, with serious consequences on patients' quality of life and future well-being (Bransfield & Freeman 2019).

Interestingly, the findings highlighted that cancer, chronic respiratory diseases, and psoriasis - despite their distinct clinical manifestations - share important common features. In addition to the remarkable (and, sometimes, scarring) physical impact they have on patients, they show meaningful, bidirectional relationships with psychological functions and inner processes. Across these pathologies, maladaptive emotion regulation strategies, immature defense mechanisms, and alexithymia were consistently found associated with poorer quality of life, reduced adherence to treatment and, consequently, worse prognoses (Ciuluvica et al. 2019; Di Giuseppe & Conversano, 2022; Martino et al. 2025; Porcerelli et al. 2017; Zimmerman et al. 2019). Personality types, instead, appear to vary across patients with different conditions: Type C personality has been predominantly associated with cancer patients (Di Giuseppe et al. 2019; Rymarczyk et al. 2020), while Type D personality is more frequently observed in individuals affected by psoriasis (Aguayo-Carreras et al. 2020; Lim et al. 2018). Beyond similarities or differences, the relevant influence of personality and emotion regulation on prognosis and quality of life in individuals with cancer, chronic respiratory diseases, and psoriasis suggests that these patients would benefit greatly from a multidisciplinary and holistic healthcare approach. For instance, a recent study (Barre et al. 2018) reported that integrative interventions combining medical and psychological treatments – such as cognitive-behavioral psychotherapy, psychoeducation, and relaxation techniques – improve not only emotional and social functioning, but also soothe physical symptoms (including fatigue, pain, dyspnea, insomnia, appetite loss, and diarrhea) in cancer patients. Similar results were obtained from Weißflog and colleagues (2015), reporting a significant effect of short-term psychodynamic psychotherapy on diminishing fatigue symptoms in a group of breast cancer patients. Psychoeducation can debunk patients' misbeliefs and misconceptions, inform them properly on their condition, dispel irrational fears and help them to accept the actual extent of their pathology, while psychosocial interventions can support patients through relational and social difficulties, for example buffering negative effects of stigmatization (Barre et al. 2018; Zill et al. 2018). Furthermore, screening programs may be effective in identifying patients with vulnerable personalities or maladaptive emotion regulation, allowing for personalized treatment that may enhance therapeutic outcomes and quality of life (Grevenhaus et al. 2024). Recognizing the role of personality and emotion regulation in chronic diseases means the possibility to develop tailored interventions aimed at support adherence to treatment, bolster personal coping and resiliency, reduce stress, increase survival rate, and prevent worse prognosis and outcomes (Aguayo-Carreras et al. 2020; Beresford et al. 2006; Bhosle et al. 2006; Di Giuseppe et al. 2018; Eysenck 1994; Fiorentino 2024; Martino et al. 2025). A biopsychosocial, person-centered model of care, capable of incorporating medical and psychological treatment, should ultimately become the gold standard for health interventions on patients with chronic diseases.

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Contribution of individual authors:

Davide Guarino & Gabriella Martino: conceptualization, data curation, formal analysis, investigation, methodology, project administration, visualization, validation, writing original draft, writing review & editing, supervision.

Giada Jul & Mariagrazia Di Giuseppe: conceptualization, visualization, writing original draft, writing review & editing.

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