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Opinion Article

Psychological components of chronic diseases: the link between defense mechanisms and alexithymia

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The influence of psychological health in the etiology of chronic diseases is nowadays a central topic of scientific debates (Eikeseth et al., 2020; Martino et al., 2021a; Sardella et al., 2021). Patients coping with a chronic condition experience complex emotional distress that is frequently overlooked when medical care is considered (Gatchel, 2004; Turner & Kelly, 2000). However, research in neuropsychology largely demonstrated a strong relationship between psychological functioning and symptoms expression in chronic illnesses (Catalano et al., 2018; 2020; Fiegl et al., 2019; Kelly et al., 2020; Martino et al., 2019; 2021; Vicario et al., 2020). Recent studies have shown that personality functioning is associated with the course of the disease and survival probability (Beresford et al., 2006; Galli et al., 2019; Koole & Rothermund, 2011), which arise particular interest in structural aspect of psychological functioning in the onset of chronic diseases. Several studies observed that specific personality patterns, as neuroticism and introversion, may increase the risk of specific somatic diseases such as cancer in people with Type C Personality (Eysenck, 1994; Greer & Morris, 1975; Shen et al., 2021). Findings suggested

that one specific aspect of personality organization, as emotion regulation, may be a risk factor in the progression of clinical conditions (Di Giuseppe et al., 2020; Gugliandolo et al., 2020; Marchini et al., 2021; Rymarczyk et al., 2020; Vita et al., 2020), confirming the hypothesis of biopsychosocial risk factors in the insurgence of chronic diseases (Boldrini et al., 2020; Lewis et al., 2003). Emotion regulation is an important aspect of psychological functioning that influences subjective experience and moderates emotional responses throughout the lifetime (Brown et al., 2022; Di Giuseppe et al., 2022; Eftekhari et al., 2009). This ability includes conscious effort to control and change an emotional, such as cognitive reappraisal and expressive suppression, and unconscious automatic processes, such as defense mechanisms and somatization. The interaction between both explicit and implicit emotion regulation processes fosters adaptive responses as hypothesized by the dual-process framework of emotion regulation (Gyurak et al., 2011; Myles & Merlo, 2022a).

One aspect of emotion regulation, such as defensive functioning, has been demonstrated as highly relevant in determines greater quality of life, adherence to treatment and positive prognosis in chronic illness (Di Giuseppe et al., 2021; Porcerelli et al. 2017; Zimmerman et al., 2019). Defense mechanisms are defined as automatic psychological mechanisms that mediate the individual's reaction to emotional conflicts and to internal or external stressors (Perry, 2014). High-adaptive defenses protect the individual from experiencing stressful conditions of being affected by a chronic illness as extremely and shattering and insurmountable (Conversano et al., 2020; Heim et al., 1978; Hyphantis et al., 2013; Talepasand & Mahfar, 2018). Conversely, the use of neurotic and immature defenses is associated with sleep disturbance, worse clinical conditions, and lower survival rates (Hyphantis et al., 2011; 2016). In cancer patient, the frequent use of repression leads to impairment of 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; Weihs et al., 2000).

Another personality trait frequently associated with chronic diseases is alexithymia (Barbosa et al., 2011; Saariaho et al., 2013). Defined as the inability to distinguish between emotions, thoughts and physiological responses to stimuli, alexithymia has been found to be associated with hyperarousal, physical symptoms and unhealthy compulsive behaviors, inflammatory bowel disease, fibromyalgia, and several other medical conditions (Martino et al., 2021b; Lumley et al., 2005; Settineri et al., 2019; Shinkov et al., 2018; Willemsen et al., 2008). High levels of anxiety and depression are also related to alexithymia, especially in patients with poor compliance and adherence, concurring in a worse clinical picture and course of chronic diseases

(Barchetta et al., 2021; Gangemi et al., 2021; Leweke et al., 2012; Myles & Merlo, 2022b; Mnif et al., 2014; Stanton & Hoyt, 2017).

Among other factors which contribute both to the onset and to the course of chronic illness, adverse childhood experiences and current stressful life events increase the risk for the development and worse progression of chronic illnesses (Davis et al., 2014; Pervanidou & Chrousos, 2012;). The occurrence of traumatic experiences affects life stress and compensatory behaviors and are associated with cardio-metabolic complications and comorbidities (Kesebir, 2014; Kessler & Bromet, 2013; Rich-Edwards et al., 2012; Rock et al., 2014). High serum triglyceride and low HDL-cholesterol concentrations have been observed in depressed patients who were experiencing high perceived stress (Peterfalvi et al., 2019), as well as in people that experienced neglect and physical and sexual abuse during the childhood (Li et al., 2019). Poor performance, cognitive dysfunction in memory, attention, visuo-spatial abilities, and executive functions have been also found associated with the risk of cardio-metabolic diseases (Wooten et al., 2019; Yaffe et al., 2004; Yates et al., 2012).

Despite the increasing attention on psychological correlates of chronic diseases, research is still lacking empirical evidence about the interrelation between defense mechanisms and alexithymia (Bogutyn et al., 1999). Attempts to explain the etiology of alexithymia have resulted in disagreements regarding the relationship between alexithymia and psychological defense mechanisms, although strong associations with emotional inhibition and maladaptive defenses have been largely observed (Helmes et al., 2008). In reference to the hierarchical organization of defense mechanisms (Perry, 1990; Perry & Henry, 2004), there are few overlaps in the definition of these two psychological constructs. First, the inability to distinguish emotional and cognitive subjective experiences is close to the function of repression, defined as “*a defense that protects the subject from being aware of what he is experiencing or has experienced in the past. The subject may experience a particular affect, impulse, or desire, but the actual awareness of what it is, that is, the idea associated with it, remains out of awareness. While the emotional elements are clearly present and experienced, the cognitive elements remain outside of consciousness?*” (Di Giuseppe & Perry, 2021, pag 9). Second, the unaware experience of physiological responses to stimuli recalls the activation of the defense dissociation, defined as “*a temporary alteration in the integrative functions of consciousness or identity. In the defense of dissociation, a particular affect or impulse which the subject is not aware of operates in the subject's life out of normal awareness. Both the idea and associated affect or impulse remain out of awareness but are expressed by an alteration in consciousness. While the subject may be dimly aware that something unusual takes place at such times, full acknowledgment that his or her own affect or impulses are being expressed is not made. Dissociation*

may result in a loss of function or in uncharacteristic behavior” (Di Giuseppe & Perry, 2021, pag 9). Finally, we could add that a certain number of other defenses, such as undoing, displacement, and denial, could be also important components of alexithymia that should be analyzed in future studies.

From a clinical perspective, these assumptions might be relevant for a complex understanding of the onset and progression of chronic illnesses. Patients with high levels of alexithymia and high use of neurotic defenses might be vulnerable to develop chronic illnesses since they do not properly code their psychological distress. This cumulative inability to be aware of their subjective experiences might increase psychological distress, affect immune system and lead to unhealthy lifestyle. Therefore, it is essential to analyze the interrelation of both psychological and organic issues, considering the reciprocal effects that various aspects of psychological functioning, such as personality traits, defensive functioning, and alexithymia, have on the course of chronic illness (Yoo J & Ryff, 2019). An integrative clinical approach that includes also longitudinal and randomized control trial research design and empirically validated measures (Békés et al., 2021; Di Giuseppe et al., 2014; Prout et al., 2022; San Martini et al., 2004) could finally provide an in deep understanding of the etiopathogenesis of chronic diseases and foster personalized treatment. As an essential component of treatment and care, therapists' emotional responses should be included in the development of effective psychotherapeutic interventions (Tanzilli & Gualco; Tanzilli et al., 2020) that could reduce symptoms of psychological distress with the potential effect of better disease progression and higher quality of life (Barrera & Spiegel, 2014; Yonatan-Leus et al., 2020).

Conflict of Interest Statement

The authors declare that the research was conducted in the absence of any potential conflict of interest.

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