

Our study represents a pivotal exploration into the mediating effects of resilience and cognitive emotion regulation strategies on the influence of self-compassion (SC) as a determinant of reduced depression levels in patients diagnosed with a malignancy. Our findings robustly emphasize the significant contribution of SC in mitigating depression severity, reinforcing its validity as a primary predictor in our analysis. Consistent with our hypotheses, self-compassion, resilience, and cognitive emotion regulation strategies emerged as protective bulwarks against depression. Specifically, individuals with cancer diagnoses who exhibited diminished self-compassion, resilience, and adaptive cognitive emotion regulation strategies presented with heightened depression scores. Of note, resilience and cognitive emotion regulation strategies not only demonstrated their own merits as protective factors but also acted as vital mediators in the relationship between SC and depression, as measured by the BDI. Beyond the role of SC, the mediating influences of resilience and cognitive emotion regulation strategies suggest their value as key targets in therapeutic interventions aimed at reducing depression. Furthermore, our findings bolster the case for the integration of compassion-focused interventions in mental health care, especially for those facing profound stressors, such as patients grappling with cancer. Given the marked impact of self-compassion on depression, there's a compelling argument for embedding compassion-centric modules within therapeutic frameworks to augment their efficacy. In our examination of cancer types, consistent with the broader literature, breast and lung cancers emerged as the most prevalent [24,25]. The study delved into the psychological turmoil often encountered by individuals grappling with a cancer diagnosis, a scenario that potentially escalates the symptoms of anxiety and depression. This pattern aligns with prior research that showcases the notable emotional turmoil in this group, a consequence of the intricate dynamics associated with the treatment trajectory, persistent fears of relapse, and the existential dilemmas spurred by the affliction [26,27]. The insights gained from the Self-Compassion Scale (SCS) were illuminating. Individuals diagnosed with cancer exhibited diminished scores on SCS subscales, including self-kindness, common humanity, and mindfulness. In contrast, they recorded elevated scores in negative domains like self-judgment, isolation, and over-identification. This deviation accentuates the deleterious psychological sequelae of the illness, where patients might harbor feelings of isolation, augmented self-criticism, and a reduced capacity to remain grounded in the present [28]. Prior studies have emphasized the therapeutic potential of self-compassion in alleviating distress, underscoring its importance in cancer care [29]. Cognitive Emotion Regulation Questionnaire (CERQ), another focal point of the study, showed that cancer patients were more prone to self-blame, rumination, and catastrophizing, while demonstrating lower scores in adaptive strategies like positive refocusing and positive reappraisal. The inclination to catastrophize, coupled with tendencies for self-blame, can augment feelings of despair and powerlessness, further eroding their psychological well-being [11,30,31,32]. Alexithymic traits were investigated among the cancer patients in the study, as evidenced by the scores from the Difficulty in Identifying Feelings (DIF) and Difficulty in Describing Feelings (DDF) components of the Toronto Alexithymia Scale (TAS). These scores indicate potential challenges in recognizing and expressing emotions, which could obstruct effective emotional processing and hinder adaptive coping mechanisms. This is in line with the observations made in the study by Lumley et al., which identified similar challenges in emotional processing [33]. Further research by

Yeung et al. underscored the role of alexithymic characteristics such as these in influencing functional well-being, particularly noting the barriers created in emotional processing due to difficulties in identifying and describing feelings [13]. In light of the observed alexithymic traits, implementing emotion-focused therapies might also prove fruitful. By assisting patients in identifying, labeling, and articulating their emotions, the emotional processing can be facilitated, potentially reducing psychological distress. One such therapeutic approach is the Emotion Regulation Group Therapy, which has shown promise in helping individuals with emotion regulation difficulties [34]. In the context of resilience, it transcends mere endurance; it is a repository of protective attributes and personal strengths that facilitate successful adaptation, encompassing elements such as optimism, strong coping mechanisms, and robust social support systems. It is noteworthy that resilience is a dynamic attribute, potentially fluctuating due to a variety of factors including evolving life circumstances and situational challenges. Remarkably, many cancer patients successfully traverse the stressful path of their illness, managing to maintain a semblance of normality in their daily routines and in some instances, experiencing personal growth. It is noteworthy that the journey through cancer can markedly erode this resilience, reflected in the BRS scores of the patients in our study. This erosion of resilience amidst the hardships of the disease accentuates the intricate interplay of physical and psychological challenges they undergo. Not just a testament to the adversities they face, it puts a spotlight on a critical area for support and intervention to enhance their coping mechanisms and improve their quality of life during their cancer journey [10]. A salient aspect of our investigation revolved around the subjective experiences of pain among cancer patients. Pain, both acute and chronic, is frequently intertwined with cancer diagnoses and treatment regimens [35]. Our findings indicated a significant correlation between the intensity of pain and emotional distress markers. Notably, participants reporting higher pain levels often exhibited lower self-compassion scores and relied more heavily on maladaptive cognitive emotional regulation strategies. This suggests that the physical distress of pain may exacerbate emotional turmoil, further underscoring the need for comprehensive pain management in tandem with psychological interventions. It is also crucial to consider the potential bidirectional nature of this relationship, as while pain might heighten emotional distress, maladaptive emotional coping might, in turn, intensify the perception of pain. This intricate relationship calls for a holistic approach to patient care, where pain management and psychological well-being are treated as interconnected domains. While the study delineates the psychological profile of cancer patients, it also ventures into an unexplored avenue—the potential differences in psychological distress based on the type of malignancy. We observed a distinct variation in BDI scores across various cancer types, with pancreatic cancer patients presenting the most elevated scores, which indicate a higher level of depressive symptoms in this subgroup. This finding prompts a deeper investigation into the underpinnings of these high scores, possibly opening doors to a nuanced understanding of the psychological landscape of cancer patients. It can encourage future research to move towards a more individualized approach to psychological assessment and intervention, allowing for strategies that address not only the general distress experienced by cancer patients but also the specific distress patterns associated with different types of cancer. Recognizing the unique challenges faced by pancreatic cancer patients, in particular, might pave the way for targeted interventions to improve their

psychological well-being [36]. Mediation analyses provided crucial insights into the complex relationships among self-compassion, resilience, cognitive emotion regulation, depression, and anxiety. The research affirms the mediating role of emotional resilience in navigating the connections between self-compassion and the manifestations of both depression and anxiety. This buttresses the assertion that resilience and self-compassion are intertwined constructs, where fostering self-compassion can bolster resilience, thus ameliorating the mental health outcomes for cancer patients [37]. The pronounced negative coefficient ($b = -0.482$) in the direct link between self-compassion and depression stands as a significant finding. It indicates a tendency for individuals harboring higher self-compassion to report diminished depression scores, a trait possibly fostered by a gentler self-view and decreased self-reproach, aligning with earlier research narratives. A possible explanation for this could be the core components of self-compassion, which include self-kindness, a sense of shared humanity, and mindfulness [9]. These components enable individuals to treat themselves with kindness, understand their struggles as part of the broader human experience, and observe their feelings non-judgmentally. Collectively, these elements could counteract the feelings of isolation, rumination, and self-criticism that often accompany depression. Similarly, cognitive emotion regulation strategies, which encompass how individuals think about their emotions and how they handle them, can be influenced by self-compassion. A self-compassionate mindset might deter maladaptive cognitive strategies, such as rumination or catastrophizing, which are often implicated in depressive symptomatology. Instead, individuals might be encouraged to adopt more adaptive strategies, like positive reappraisal or acceptance. Fostering a self-compassionate approach could potentially curb the reliance on maladaptive cognitive processes like rumination or catastrophizing, frequently associated with depressive symptoms. Conversely, it might promote the adoption of adaptive strategies such as positive reappraisal or acceptance, steering individuals toward a healthier mental state. The mediational model for anxiety mirrored that of depression, further solidifying the protective role of self-compassion. The indirect effects point to emotional resilience as a potential buffer against anxiety, positing that self-compassionate individuals may develop stronger emotional coping mechanisms that reduce anxiety susceptibility. While scant research has probed into the interplay of self-compassion, resilience, and cognitive emotion regulation within the cancer patient demographic, these concepts resonate deeply in broader populations. Neff's depiction of self-compassion positions it as a robust shield against depression and anxiety, corroborated by studies like that of Van Dam et al. [9,38]. The literature distinctly underscores the tandem effect of mindfulness and self-compassion in assuaging emotional distress, propelling resilience to the forefront as a potential mediating agent [39]. Resilience, framed as the innate human capacity to rebound from setbacks, melds seamlessly with mindfulness, and stands as a cornerstone in well-being outcomes [40]. Preliminary links suggest a deep-rooted symbiosis between resilience and self-compassion, although further exploration remains due [41]. Reflecting upon the extant literature and the revelations from our investigation, it is evident that self-compassion, whether directly or mediated via resilience, cast a profound impact on emotional states like anxiety and depression. Remarkably, consistent with earlier anticipations, our analysis amplifies the unique potency of self-compassion, suggesting it might even overshadow mindfulness in orchestrating emotional equilibrium. Such insights accentuate the

imperativeness of weaving mindfulness, self-compassion, and resilience into therapeutic paradigms,
fostering a comprehensive upliftment in patient wellness trajectories