



**CESPU**  
INSTITUTO UNIVERSITÁRIO  
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# **Psychological interventions for the treatment of patients with chronic dermatosis: A systematic literature review.**

**Adriana Helena Sousa Loureiro**

**Tese conducente ao Grau de Mestre em Psicologia da Saúde e  
Neuropsicologia**

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Trabalho realizado sob a Orientação de  
**Prof. Doutora Vera Almeida e Prof. Doutora Ana Teixeira**

## **DECLARAÇÃO DE INTEGRIDADE**

Eu, Adriana Helena Sousa Loureiro, declaro ter atuado com absoluta integridade na elaboração deste trabalho, confirmo que em todo o trabalho conducente à sua elaboração não recorri a qualquer forma de falsificação de resultados ou à prática de plágio (ato pelo qual um indivíduo, mesmo por omissão, assume a autoria do trabalho intelectual pertencente a outrem, na sua totalidade ou em partes dele). Mais declaro que todas as frases que retirei de trabalhos anteriores pertencentes a outros autores foram referenciadas ou redigidas com novas palavras, tendo neste caso colocado a citação da fonte bibliográfica.

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## **Prefácio**

As dermatoses crônicas são extremamente prevalentes, estima-se que 30 a 60% de pacientes com doenças dermatológicas sofrem de problemas psicológicos ou psiquiátricos. Estas condições são caracterizadas por manifestações físicas, que causam sofrimento psicológico e são experienciados sentimentos de vergonha, frustração, falta de autoestima e de confiança que geralmente levam ao isolamento e corte de relações e atividades sociais.

As intervenções psicológicas têm um papel relevante nas estratégias terapêuticas para estas patologias, uma vez que podem aumentar a consciência corporal, regular o sofrimento, facultar ferramentas para auxiliar o paciente a ultrapassar momentos mais negativos e desta forma melhorar a qualidade de vida.

Neste sentido, a elaboração desta revisão sistemática da literatura, teve o objetivo de estudar as intervenções psicológicas mais adequadas e com maior impacto no tratamento de pacientes com dermatoses crônicas, no sentido de promover o conhecimento na área, detetar lacunas e propor o desenvolvimento de futuras investigações e estratégias terapêuticas integradas e adaptadas às condições do paciente.

Para isso, iniciamos com uma pequena introdução sobre o que são dermatoses, o impacto que estas têm na vida do indivíduo e as intervenções psicológicas utilizadas para o tratamento. Em seguida, passamos para a metodologia do trabalho, iniciamos com a pesquisa de artigos sobre o tema, realizou-se uma seleção e discussão dos mesmos foi feita em equipa, seguindo os critérios de inclusão para o objetivo do trabalho, foi feita uma análise, onde se comparou os resultados obtidos em diferentes intervenções utilizadas, e para terminar foi feita uma discussão dos resultados obtidos com sugestões de futuras propostas de investigação.

## **Psychological interventions for the treatment of patients with chronic dermatosis: a systematic literature review.**

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## Resumo

As dermatoses crónicas são patologias de elevada prevalência, podendo apresentar-se sob diversas formas clínicas, em ambos os sexos e em qualquer idade. Os sintomas experimentados por estas condições e a perceção que o doente tem da doença e da sua manifestação, leva muitas vezes ao isolamento e dificuldades na regulação emocional. Estes sintomas podem relacionar-se com baixa qualidade de vida e sintomatologia depressiva e ansiógena. Esta revisão sistemática da literatura tem como objetivo estudar o tipo e impacto das intervenções psicológicas, no tratamento de pacientes com dermatoses crónicas. As diretrizes Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) foram seguidas na revisão sistemática, nas bases de dados PubMed, Google Scholar e PsycNet. Os estudos considerados relataram o impacto das intervenções psicossociais em pacientes com dermatoses crónicas. Foram considerados os estudos publicados em revistas revisadas por pares. Os resultados obtidos na análise dos artigos, relataram o sucesso de intervenções com base no Mindfulness, auto-compaixão, autoajuda e atenção plena, reduzindo o sofrimento em relação a doença, os níveis de depressão e ansiedade e melhoria na qualidade de vida. O desenvolvimento de linhas de investigação para promover o conhecimento nesta área permitirá melhorias significativas na assistência terapêutica a pacientes com dermatoses crónicas, com o desígnio de apoiar os profissionais de saúde no desenvolvimento de estratégias terapêuticas integradas, para esses pacientes na sua prática clínica.

**Keywords:** dermatoses, doenças de pele, intervenção psicológica, auto-compaixão, imagem corporal, dermatite atópica e psoríase.

## **Abstract**

Chronic dermatoses are extremely prevalent and can manifest in various forms across genders and ages. Faced with the symptoms experienced by these conditions and the patient's perception of the disease and its manifestation, it often leads to isolation and difficulty in emotional regulation. All these symptoms are associated with low quality of life, resulting in depressive and anxious symptomatology. This systematic literature review aims to study psychosocial interventions with an impact on the treatment of patients with chronic dermatosis. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed, guiding a systematic search across PubMed, Google Scholar, and PsycNet databases. The considered studies reported the impact of interventions when applied to patients with chronic dermatosis. All the studies found were published in peer-reviewed journals. The results obtained from the analysis of the articles reported the success of interventions based on mindfulness, self-compassion, self-help, and mindfulness, reducing suffering related to the disease, lowering levels of depression and anxiety, and improving overall quality of life. The development of research lines to enhance knowledge in this field will allow significant improvements in therapeutic care for patients with chronic dermatosis, aiming to support professionals in the development of integrative therapeutic strategies for these patients in their clinical practice.

**Keywords:** dermatoses, skin diseases, psychological intervention, self-compassion, body image, atopic dermatitis, and psoriasis.

## 1. Introduction

Society is frequently exposed to live and virtual images that pose a threat to body image, images that are related to appearance and lead to a reduction in body satisfaction or a momentary decrease in evaluative attitude towards one's own body or its parts. Another aspect can be defined as discomfort or apprehension about body parts falling short of culturally defined beauty standards. A positive body image does not imply the absence of a negative body image; it is a flexible, holistic, and protective construct that goes beyond mere appearance satisfaction to include respect, honor, love, and acceptance of the body, including its unique features that deviate from appearance ideals (Seekis et al., 2017).

When we talk about body image acceptance, one of the essential components is our skin. The skin has a remarkable capacity for renewal, repair, and a certain degree of impermeability. However, there are many chronic skin conditions that affect an individual's body image acceptance, with the most common ones being seborrheic dermatitis, contact dermatitis, psoriasis, vitiligo, and hives (Ücker Calvetti et al., 2017).

Chronic dermatoses are extremely prevalent and can manifest in various forms in both sexes and age groups. The self-assessed implications by individuals with a skin condition are more strongly associated with psychological distress than the severity estimated by the physician, suggesting that individuals' perceptions and emotions regarding their skin condition play a fundamental role in the development of related distress (Clarke et al., 2020a).

Broader surveys of conditions affecting appearance report findings where individuals with visible signs tend to experience above-average levels of psychological distress (Rumsey & Harcourt, 2004; Thompson & Kent, 2001). There is considerable individual variation in the psychosocial impact of an altered appearance, and mental health condition can therefore affect the burden, severity, and implications of physical conditions. This highlights the need for attention from healthcare professionals, especially those in the mental health field (Clarke et al., 2020).

Faced with symptoms experienced in this condition such as shame, distress, frustration, lack of confidence, loss of self-esteem, and body image issues, (Ahmed et al., 2018) and the patient's perception of the illness and its manifestation often leads to isolation, abandonment of activities, difficulties in relationships with others, and challenges in emotional regulation. In effect, all these symptoms are associated with elevated levels of low quality of life that generate depressive and anxiety-related symptoms (Galhardo et al., 2022).

Psychological interventions for the treatment of dermatoses have been based on self-compassion, self-concept, and mindfulness, which are rooted in non-self-judgment and acceptance of inner experiences and physical sensations. Mindfulness-based therapies not only aim to increase body awareness and regulate suffering overall but also emphasize the fundamental role of self-compassion in the patient's ability to be kind to oneself during moments of heightened distress (Berry et al., 2020). In addition to these interventions, expressive writing based on self-compassion aims to stimulate self-compassion to improve body image, especially in situations of failure, humiliation, and feelings of loss. This approach seeks to prevent negative thoughts about oneself and one's body (Melissant et al., 2021a). This intervention has been used in patients with other conditions, such as oncological patients, specifically those with breast cancer. The treatments for the disease produce visible effects on the body, such as breast surgery and hair loss. Concerns about body image are automatic, and many of these women struggle to return to their normal lives due to difficulties in adapting to bodily changes. This is a complex process that requires both physical and psychological treatment. In a study conducted by (Sherman et al., 2018), when applied, expressive writing based on self-compassion in the post-cancer process, there was an observed increase in self-compassion, demonstrating an improvement in distress. The aim of this literature review is to investigate/study psychological interventions suitable for intervening in patients with chronic dermatoses.

## **2. Background**

Atopic dermatitis (AD) and psoriasis are chronic inflammatory skin diseases characterized by the appearance of erythema, white scales, thickening of the epidermis and itching. Vitiligo is a pathology characterized by depigmentation of the skin, manifested by milky-white patches and, although it does not cause direct damage to health, it is a problem with few treatment alternatives and can trigger major psychosocial disturbances. These diseases have no cure and an unknown etiology, but it is believed that there is a genetic, environmental or immunological cause (Madden et al., 2020; Pancar Yuksel et al., 2019) and/or hormonal (Ballone & Ortolani, 2007). Studies suggest that the emotional and psychological impact of acne is similar to that observed in patients with systemic diseases. Relating to the considerable personal, social and health burden suffered by these individuals, acne results in physical symptoms and psychological comorbidities (Knutsen-Larson et al., 2012).

It is estimated that 30 to 60% of patients with dermatological diseases have psychological or psychiatric problems (Ashwanikumar et al., 2018). Dermatoses are associated with a significant psychological impact on an individual's functioning, daily life and relationships, which is responsible for the onset, maintenance and worsening of a wide variety of conditions (Baygildin et al., 2021).

The potentially visible nature of skin diseases can result in unwanted adaptation reactions and interfere with social interactions, causing a certain stigmatization, which leads to fear (Baygildin et al., 2021) and a negative body image, which invariably lead to comorbidities such as depression, anxiety and phobias, and are associated with such emotional distress that they can ultimately lead to suicidal ideation (Ashwanikumar et al., 2018).

The impact that skin conditions have on an individual's social, emotional, and physical well-being, thus influencing their quality of life, has led to the development of psychological interventions for dermatoses. Their function is to treat the emotional side (Souza, 2020), to facilitate the most satisfactory adaptation to the condition in which they find themselves (Trindade & Teixeira, 2000), with the aim of reducing symptoms on the skin, which often appear due to the stress that the disease itself can cause the individual (Baikie & Wilhelm, 2005; Souza, 2020). In this sense, it is important to create conditions in terms of self-help, self-knowledge and autonomy, promoting psychological well-being, giving tools to combat the effects and crises caused by the condition (Trindade & Teixeira, 2000).

### **3. Methodology**

#### *3.1. Search Strategy*

As guided by PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), we searched for articles using the PubMed, Google Scholar and PsycNet databases. The keywords used were: "dermatoses", "skin diseases", "psychological intervention", "self-compassion", "body image", "atopic dermatitis" and "psoriasis". We found some studies through the references of others. The papers chosen were filtered. All the authors of this article were actively involved in all stages of the review process.

### *3.2. Inclusion criteria*

The titles and abstracts of the studies were evaluated and selected for inclusion following specific criteria: (a) complete studies (without protocols); (b) studies correlating dermatoses and psychological interventions; (c) studies involving specific interventions and their psychological and psychosocial outcomes; and (d) studies published in peer-reviewed journals. The articles considered are in English and Portuguese.

### *3.3. Exclusion criteria*

Studies were excluded if they focused only on dermatoses and excluded psychological interventions, or if they addressed only the dermatological or pharmacological aspects themselves and did not establish an association with the psychological dimensions. Studies that addressed interventions with the family were also excluded, as were case reports and studies that did not describe the results of the intervention and had a small sample size (<10 participants).

### *3.4. Screening*

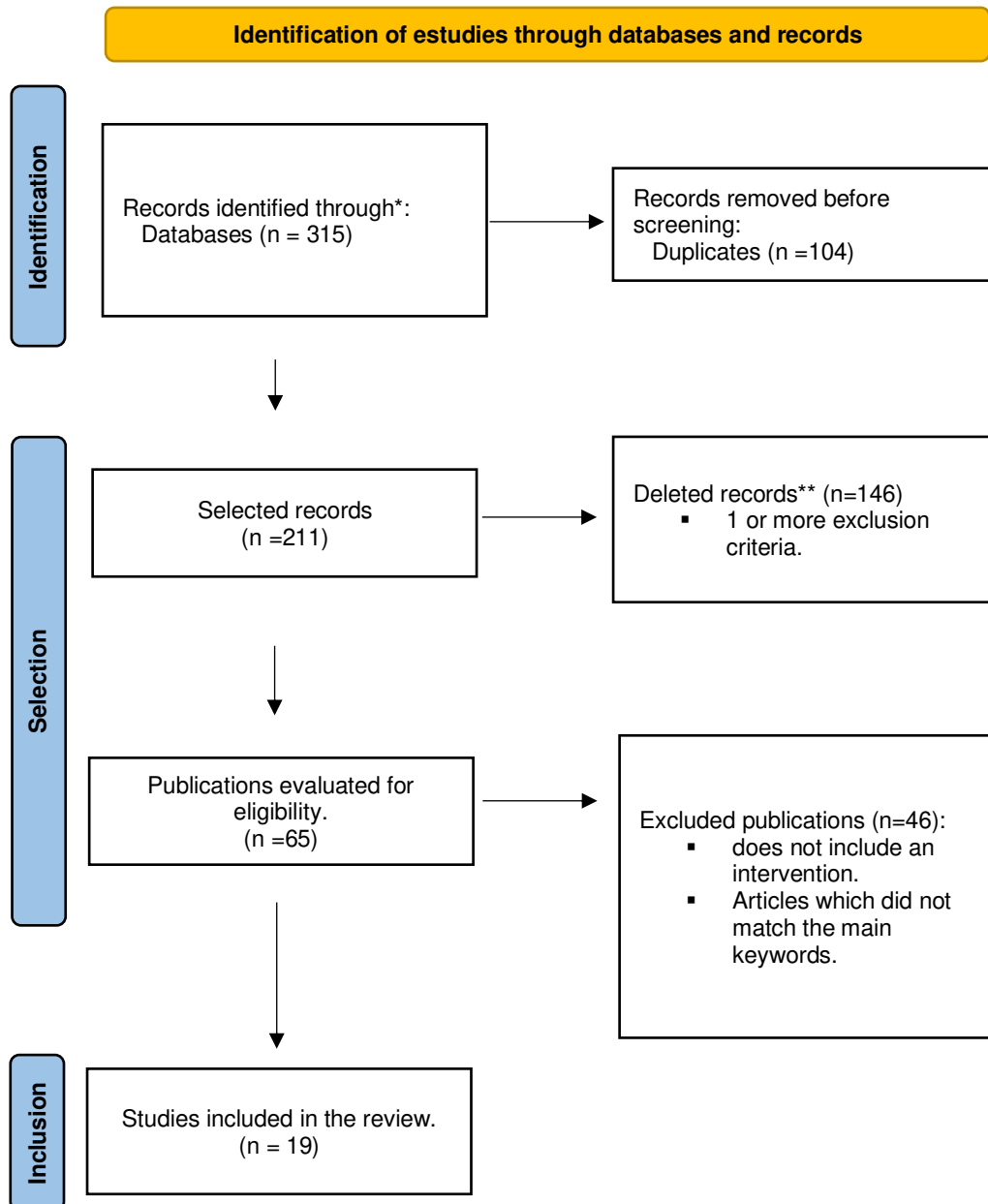
The title/summary of the studies was selected independently, always based on the inclusion and exclusion criteria.

### *3.5. Quality assessment*

The methodological quality of the studies was assessed by the journal's Q index, using Scimago Journal & Country Rank. Of the nineteen articles selected, sixteen were in the 84% highest impact group (Q1) (Adkins et al., 2022; Bundy et al., 2013; Da Silva et al., 2011; D'Alton et al., 2019a; Harfensteller, 2022; Hedman-Lagerlöf et al., 2019; Hudson et al., 2020; Kelly et al., 2009; Łakuta, 2022; Larsen et al., 2014a; Mifsud et al., 2021; Offenbacher et al., 2021; Ridge et al., 2021; Seekis et al., 2017b; Sherman et al., 2019; Zucchelli et al., 2021), two were in the 11% lowest impact group (Q2) (Borimnejad et al., 2015; Muftin et al., 2022), and one was in the 5% lowest impact group (Q3) (Singh et al., 2017).

## 4. Results

The initial searches in the databases yielded a total of 315 articles, of which 104 (33.02%) were removed due to duplication. The abstracts of the remaining 211 (66.98%) studies were analyzed, and 146 (46.35%) were excluded. Among the remaining 65 (20.63%) full-text articles, 46 (14.6%) were excluded, resulting in 19 (6.03%) articles for review (Figure 1).



**Figure 1.** PRISMA flow diagram comprising the different phases of this systematic review.

#### *4.1. Studies' Characteristics*

The characteristics of the studies (n=19) are presented in Table 1. One study (5%) included cancer survivors, seventeen studies (89%) focused on patients with dermatological conditions, predominantly psoriasis, and one study (5%) addressed the role of negative body image in individuals with dermatosis. Of the 19 studies, four (21%) applied the intervention of expressive writing based on self-compassion, and fifteen (80%) applied interventions based on mindfulness therapy. Regarding methodology, nine (47%) were randomized controlled trials, four (21%) randomized study, two (11%) were pilot studies, two (11%) were qualitative studies, one (5%) was a prospective cutting study, and one (5%) was an open trial.

**Table 1.** Resume of the studies reviewed for this literature review.

Study Title	Reference and Metrics <sup>i</sup>	Main Aim	Methodology	Main Results	Discussion/Conclusions
<p><b>Self-help targeting body image among adults living with dermatological conditions: An evaluation of a brief writing intervention</b></p>	<p>(Adkins, 2021) Q1 (high)</p>	<p>Dermatological conditions can affect how individuals feel about their bodies. This research therefore seeks to evaluate the potential for a brief writing intervention, focused on body functionality, to improve body image in adults living with a range of dermatological conditions.</p>	<p>Randomised Controlled Trial</p>	<p>For participants with relatively low or mid-range scores on baseline body appreciation and functionality appreciation, there were medium-to-large effects of the intervention. Effects were smaller, with all but-one remaining significant at one-month follow up and in intention-to-treat analyses. No effects of the intervention were found for measures of appearance anxiety, skin-related shame, and skin-related quality-of-life.</p>	<p>One-week writing intervention has the potential to improve positive aspects of body image, but not appearance and skin-related distress in adults living with a dermatological condition. However, these findings should be considered in the context of high attrition across both the intervention and control conditions.</p>
<p><b>The skin expressing affection: a group intervention with patients suffering from psychodermatoses</b></p>	<p>(Da Silva et al., 2011) Q1 (high)</p>	<p>To analyze a group intervention as a tool to promote new channels for the expression of affections in patients with psychodermatoses being treated at a public dermatology outpatient clinic.</p>	<p>Exploratory and descriptive study of a qualitative nature</p>	<p>The results show that the group was able to become a space for listening to and accepting suffering, allowing participants to see themselves and others, as well as to rehearse movements and changes in the way they relate to themselves and others.</p>	<p>The conclusion is that group intervention can be an important tool in dealing with patients with psychodermatosis, since it highlights the emotional aspects of this disease, favoring a new perspective and a more integrated model of care.</p>

Study Title	Reference and Metrics <sup>i</sup>	Main Aim	Methodology	Main Results	Discussion/Conclusions
<b>An Open Trial on the Feasibility and Efficacy of a Mindfulness-Based Intervention with Psychoeducational Elements on Atopic Eczema and Chronic Itch</b>	(Harfensteller, 2022) Q1 (high)	This article reports on a novel Mindfulness based Training for chronic Skin Conditions (MBTSC) with psychoeducational elements that was developed with the goal of improving self-regulation including stress management and emotion regulation in patients and to help in coping with disease symptoms such as itch and scratching.	Open trial	Quantitative data showed improvements in disease severity, itch perception and stress levels with small to medium effect sizes.  Psychological distress increased at post-treatment—significantly in the case of depression. Qualitative data highlighted the mixed effects of MBTSC on symptoms. Treatment acceptability was high and 100% of the participants completed the intervention	These data indicate that MBTSC is feasible and that it might be a useful tool as adjunct therapy for AD. Further studies with larger samples and control groups are needed.
<b>Exposure-based cognitive behavior therapy for atopic dermatitis: an open trial</b>	(Hedman-Lagerlöf et al., 2019) Q1 (high)	The aim of the present study was to test the treatment's acceptability and preliminary efficacy in adults with AD.	Pilot study	The results showed significant and large baseline to posttreatment improvements on self-reported measures of AD symptoms ( $p = .020$ ) and general anxiety ( $p = .005$ ), but there was no significant improvement in depression or quality of life. Treatment satisfaction was high, and	We conclude that exposure-based CBT for adult AD can be feasible, acceptable, and potentially efficacious.

Study Title	Reference and Metrics <sup>i</sup>	Main Aim	Methodology	Main Results	Discussion/Conclusions
				most participants (67%) completed the treatment.	
<b>Compassion-focused self-help for psychological distress associated with skin conditions: a randomized feasibility trial</b>	(Hudson et al., 2020) Q1 (high)	Test the feasibility of a self-help intervention based on Compassion-Focused Theory (CBT) and understand the effects of the treatment on a population of adults with skin diseases.	Randomized controlled study	The CFT self-help intervention shows promise results in treating psychological distress associated with skin conditions.	Although the study indicates that the intervention may be promising in treating psychological distress associated with skin problems, further testing of the intervention is not feasible without significant methodological changes, including the way the treatment is administered.
<b>A Factorial Randomized Controlled Trial of Implementation-Intention- Based Self-Affirmation Intervention: Findings on Depression, Anxiety and Well-being in Adults With Psoriasis</b>	(Łakuta, 2022) Q1 (high)	Study whether strengthening the specificity element within the body-related self-affirmative implementation intention intervention compared to general self-affirmative implementation intention would provide greater improvements for adults with psoriasis.	Randomized Study	Exploratory analysis revealed two moderating effects of age and self-esteem, pointing to borderline conditions of the interventions.	These findings offer deeper insights into the negative effects also reported in previous work and highlight that self-affirmation interventions must be further investigated and optimized before they can be widely implemented in real-life contexts.
<b>Feasibility and pilot study of a brief self compassion intervention addressing body image</b>	(Mifsud et al., 2021b) Q1 (high)	Explore the feasibility and acceptability of the MyCB intervention, with and without an	Randomized controlled study	Adherence to MyCB writing and meditation was moderate, and acceptability was high for both MyCB and MyCB + M. Post-intervention state self-	The results provide preliminary evidence for the efficacy and potential clinical use of the brief web-based self-compassion intervention MyCB, alone and with

Study Title	Reference and Metrics <sup>i</sup>	Main Aim	Methodology	Main Results	Discussion/Conclusions
<b>distress in breast cancer survivors</b>		additional meditation component, in breast cancer survivors.		compassion and positive affect increased.	the addition of meditation, to increase self-compassion and psychological well-being in breast cancer survivors.
<b>A randomized controlled feasibility trial of online compassion-focused self-help for psoriasis*</b>	(Muftin et al., 2022) Q2 (medium)	Test the feasibility and acceptability of two studies that theoretically developed self-help interventions designed to reduce feelings of shame and improve quality of life.	Randomized controlled study	Both interventions showed moderate but statistically significant reductions in shame and improvements in quality of life.	Self-help based on compassion and mindfulness is acceptable and can reduce feelings of shame and improve the quality of life for people living with psoriasis.
<b>A Pilot Study of a Mindfulness-Based Stress Reduction Programme in Patients Suffering from Atopic Dermatitis</b>	(Offenbächer et al., 2021) Q1 (high)	Assess the feasibility, acceptability, and effectiveness of a Mindfulness-Based Stress Reduction (MBSR) Program in patients with atopic dermatitis.	Pilot study	The IMF indicated significant improvement in the “presence” and “acceptance” subscales. There was also a tendency to less stress.	Considering the long history and the severity of the disease burden, the effects of this intervention appear promising as a complement to conventional treatments.
<b>Feasibility assessment of an 8-week attention-based training programme in the management of chronic spontaneous urticaria</b>	(Ridge et al., 2021) Q1 (high)	Developing a mindfulness-based training course for individuals with chronic spontaneous urticaria.	Prospective cutting study	A decrease in the severity of urticaria symptomatology as measured by the urticaria control test was observed after completion of the intervention.	Integration of an ABT program into routine clinical care for patients with chronic spontaneous urticaria is feasible and was considered acceptable and valuable by the individuals who participated.

Study Title	Reference and Metrics <sup>i</sup>	Main Aim	Methodology	Main Results	Discussion/Conclusions
<b>The effectiveness of self-compassion and self-esteem writing tasks in reducing body image concerns</b>	(Seekis et al., 2017b) Q1 (high)	Investigate whether single-session self-compassion and self-esteem writing tasks enrich the body image concerns evoked by a negative body image induction.	Randomized study.	The self-compassion writing group showed higher post-treatment body appreciation and higher body satisfaction.	Writing-based interventions, especially those that enhance self-compassion, may help improve certain body image concerns.
<b>Enhancing self-compassion in individuals with visible skin conditions: randomised pilot of the ‘My Changed Body’ self-compassion writing intervention</b>	(Sherman et al., 2019) Q1 (high)	Investigate the feasibility of applying the My Changed Body intervention to address visible body image issues related to the skin.	Randomized pilot study.	Self-compassion and negative affect showed improvements in the experimental group compared to the control group. There was no between groups difference at follow-up in positive affect.	The My Changed Body writing intervention may provide benefit to individuals with visible skin condition.
<b>Patients’ Experiences of an Acceptance and Commitment Therapy-Based Approach for Psychosocial Difficulties Relating to an Appearance-Affecting Condition</b>	(Zucchelli et al., 2021) Q1 (high)	Investigate the lived experiences of patients with various dermatological conditions and appearance-related concerns who took part in Acceptance and Commitment Therapy sessions.	Qualitative study.	ACT-based individual therapy seemed to help speed up the process of accepting a changed appearance, which the participants highlighted as an important factor.	Participants emphasized the importance of therapists expressing compassion and helping patients cultivate self-compassion in their daily lives.
<b>Soothing Oneself and Resisting Self-Attacks: The Treatment of Two</b>	(Kelly et al., 2009)	Test the impact of two self-help interventions designed to reduce depression in acne patients, by	Randomized controlled trial.	The results indicate that among acne sufferers, practicing a more calming	In two weeks, the self-soothing intervention lowered shame and skin complaints. The attack-

Study Title	Reference and Metrics <sup>i</sup>	Main Aim	Methodology	Main Results	Discussion/Conclusions
<b>Intrapersonal Deficits in Depression Vulnerability</b>	Q1 (high)	improving difficulties with self-soothing and resisting self-attacks.		style of self-talk can reduce shame and skin problems, just as practicing stronger posture and more resilient self-talk can reduce depression, shame and skin complaints.	resisting intervention lowered depression, shame, and skin complaints, and was especially effective at lowering depression for self-critics.
<b>Mindfulness-Based Interventions for Psoriasis: a Randomized Controlled Trial</b>	(D'Alton et al., 2019b) Q1 (high)	This study aims to compare the effectiveness of mindfulness-based cognitive therapy (MBCT), mindfulness-based self-compassion therapy (MBSCT) and self-help MBSCT (MBSCT-SH) compared to treatment as usual (TAU) in improving the long-term psychological and physical outcomes of individuals with psoriasis.	Randomised controlled trial.	Although participants reported that MBIs were beneficial, no statistically significant differences were found in psychological well-being, severity of psoriasis symptoms or quality of life compared to TAU alone at post-treatment (follow-up 6 or 12 months).	There were no statistically significant differences between the MBIs in improving anxious or depressive symptoms, nor in increasing self-compassion.
<b>Clinic-based Group Multi-professional Education Causes Significant Decline in Psoriasis Severity: A Randomized Open Label Pilot Study</b>	(Singh et al., 2017) Q3 (low)	Test the benefits of a multidisciplinary group intervention using psychoeducation.	Randomised controlled trial.	After the intervention, there was a statistically significant improvement in the mean scores on the PASI, DLQI and WHO-5 in the experimental group, unlike what was observed in the control group. There was a statistically significant improvement in PHQ 9 scores in both groups. The scores on the PHQ 15 and	Psychoeducational intervention group demonstrated improvements in clinical and psychological outcomes in patients with psoriasis.

Study Title	Reference and Metrics <sup>i</sup>	Main Aim	Methodology	Main Results	Discussion/Conclusions
				the GAD 7 showed no statistically significant differences.	
<b>A telephone-based motivational interviewing intervention has positive effects on psoriasis severity and self-management: a randomized controlled trial</b>	(Larsen et al., 2014b) Q1 (high)	Evaluate the effects of a 3-month individual motivational interviewing intervention on psoriasis patients (with a total follow-up of 6 months) after climatherapy/heliotherapy (CHT).	Randomised controlled trial.	There were significant overall treatment effects in the study group in terms of the SAPASI score. The parameters of lifestyle change and knowledge about the disease were significantly better in the experimental group.	The results showed that the study group differed from the control group at 6 months after CHT in terms of disease severity, knowledge about psoriasis, self-efficacy and some lifestyles change parameters.
<b>The Effect of Expressive Writing on Psychological Distress in Patients with Vitiligo: A Randomized Clinical Trial</b>	(Borimnejad et al., 2015) Q2 (medium)	Assess whether expressive writing, as a psychological intervention, reduces psychological distress in vitiligo patients undergoing phototherapy.	Randomised study.	There was a statistically significant reduction in GHQ-28 scores in both groups 4 weeks after the intervention, but not in psychiatric distress.	The effect of expressive writing remains equivocal when it comes to reducing psychological distress in vitiligo patients. The use of phototherapy may be associated with a decline in psychological distress.
<b>A novel, web-based, psychological intervention for people with psoriasis: the electronic Targeted</b>	(Bundy et al., 2013) Q1 (high)	To determine whether an electronic CBT intervention for psoriasis (eTIPs) would reduce distress, improve quality of life and clinical severity in patients with psoriasis.	Randomized study	Anxiety scores between groups were significantly reduced only for complete cases, depression scores did not change, as did psoriasis severity scores. Quality of life	This first online CBT intervention for people with skin conditions has shown improved anxiety and quality of life in patients with psoriasis.

Study Title	Reference and Metrics <sup>i</sup>	Main Aim	Methodology	Main Results	Discussion/Conclusions
<b>Intervention for Psoriasis (eTIPs) study</b>				scores improved in both analyses.	

<sup>i</sup> According to Scimago Journal & Country Rank.

## 4.2. *Studies' Results Summary*

In the analysis of the tables, we observe that the selected studies present a similar methodology, with 47% of the articles being randomized controlled trials, 21% a randomized study, 11% a pilot study and 21% include an exploratory and descriptive study of a qualitative nature, an open trial, a prospective cutting study, and a qualitative study. As seen in Table 3, despite the variations in the instruments used to assess the effectiveness of interventions across different studies, they generally evaluated depression and anxiety (Adkins et al., 2022; Bundy et al., 2013; Harfensteller, 2022; Hedman-Lagerlöf et al., 2019; Kelly et al., 2009), quality of life (Adkins et al., 2022; Bundy et al., 2013; Hedman-Lagerlöf et al., 2019; Muftin et al., 2022; Offenbacher et al., 2021), self-compassion (D'Alton et al., 2019a; Hudson et al., 2020; Łakuta, 2022; Larsen et al., 2014a; Mifsud et al., 2021a; Muftin et al., 2022; Seekis et al., 2017b; Sherman et al., 2019; Zucchelli et al., 2021), and body appreciation (Adkins et al., 2022; Kelly et al., 2009; Seekis et al., 2017b; Sherman et al., 2019). The most studied variables included sociodemographic characteristics, with individuals diagnosed with chronic dermatoses, predominantly psoriasis and vitiligo (Table 2). The articles are grounded in aspects related to self-compassion, self-help, body image, and quality of life in patients with dermatoses. Most of the studies are classified as Q1 and Q2 metrics, indicating the significance and recognition of research on the subject.

In the intervention based on expressive writing, it was possible to observe that the use of expressive writing overall (Adkins et al., 2022) does not show significant results when used for interventions aimed at improving body image. However, different studies where expressive writing based on self-compassion was applied, compared to general expressive writing (Sherman et al., 2019) or with expressive writing based on self-esteem (Seekis et al., 2017), it was found that expressive writing based on self-compassion showed significant results. These data can be explained by the fact that expressive writing based on self-compassion requires more awareness, greater self-reflection, and a stronger self-connection (Mifsud et al., 2021), as kindness and unconditional acceptance are also important for body acceptance. These results can be useful for clinical use since cultivating a self-compassionate attitude toward stressors can promote better coping and improve mood (Mifsud et al., 2021).

In mindfulness-based interventions (D'Alton et al., 2019; Harfensteller, 2022; Ridge et al., 2021), a decrease in the severity of symptomatology, as well as emotional suffering caused by the physical effects of dermatosis, was observed. Improvements in stress, changes in

depressive symptomatology (but not anxiety), and enhanced coping with the disease were also noted. The studies reported that mindfulness led to improvements in symptoms, coping mechanisms, a deeper understanding of emotions, increased awareness of impulses, and enhancements in positive psychological attributes. In another study comparing mindfulness-based interventions such as Mindfulness-Based Cognitive Therapy, Mindfulness-Based Self-Compassion Therapy, and self-help to usual treatment, despite the beneficial aspects of these interventions, they were not significant for psychological well-being.

In two studies, Cognitive Behavioral Therapy (CBT) was used; in one, exposure-based CBT involving mindfulness practice was employed (Hedman-Lagerlöf et al., 2019), and in another, general CBT was applied to dermatosis (Bundy et al., 2013). In both studies, a reduction in anxiety and improvements in quality of life were observed, but there were no changes in the depressive component. In mindfulness-based CBT, quality of life underwent changes during the intervention, while in the study of general CBT applied to dermatosis, the results regarding quality of life were more significant. Perhaps this difference is due to the latter intervention having a greater focus on overall disease management rather than specifically targeting the treatment of suffering for psoriasis. In both studies, careful consideration is warranted when analyzing results due to the potentially limiting small sample size for interventions based on self-compassion and Mindfulness (Hudson et al., 2020; Kelly et al., 2009; Offenbächer et al., 2021; Zucchelli et al., 2021), various studies reported significant effects on stress, self-compassion, anxiety, and depression (Hudson et al., 2020). These interventions assisted in the acceptance of altered appearance (Zucchelli et al., 2021), reduction of shame and skin complaints, and a greater reduction in depression was observed in individuals with higher levels of self-criticism (Kelly et al., 2009), in one study (Offenbächer et al., 2021), with a similar intervention basis, an increase in anxiety and depression levels was reported; however, caution is advised due to the small sample size, which prevents definitive conclusions.

Finally, in a study where individual motivational interviewing was used (Larsen et al., 2014), significant changes were observed in lifestyle and overall positive changes. However, this intervention is recommended as a potential complement to medical management and for patient education regarding the condition. In a self-affirmation intervention (Łakuta, 2022), despite significant results for depressive symptoms, anxiety, and well-being, no differences were observed in mental health. The conclusion reached was that self-affirmation is not a pathway to improving psychological functioning in patients with dermatosis.

**Table 2.** Variables, analysis, and statistical methods used in the studies reviewed for this literature.

<b>Reference</b>	<b>Analysis and Statistical Methods</b>	<b>Variables</b>
(Adkins, 2021)	ANCOVA; Cronbach's alfas;	Age; gender; ethnicity, educational; dermatological condition that affects their body image; language;
(Ahmed et al., 2018)	Independent t-tests	People with vitiligo; Age (> 18);
(Clarke et al., 2020b)	SPSS 26; multiple regression; bivariate correlations; independent t-tests	Dermatology patients; age; gender; ethnicity; employment status; marital status; education level.
(Da Silva et al., 2011)	Not discriminated	People with psychodermatoses; age; gender;
(Galhardo et al., 2022)	SPSS, v. 27; Pearson's correlation; hierarchical multiple linear regression; Durbin-Watson statistics;	People with a diagnosis of psoriasis; age; gender;
(Harfensteller, 2022)	Spearman's correlation coefficient; SPSS IBM 26; t-tests; Cohen's d;	Patients with diagnosed Atopic dermatitis (AD); age (18-65); language;
(Hedman-Lagerlöf et al., 2019)	STATA version 14.2; t-tests;	Age (18-65); adults with Atopic dermatitis; duration of AD for at least 6 months; language;
(Hewitt et al., 2022)	NVivo 12 Pro;	Age; self-diagnosed dermatological condition;
(Hudson et al., 2020)	Independent samples t-tests; chi square tests	Age (16); English-speaking; diagnosis of a skin condition;
(Hughes et al., 2023)	Thematic analysis	8–11 years of age; diagnosed with any skin condition and English-language speakers. Eligible parents were 18 years of age or over; the child's main caregiver
(Łakuta, 2022)	Six linear mixed models (LMMs); PROCESS macro version 3.5.3;	Age; physician-diagnosed psoriasis;
(Mifsud et al., 2021b)	c2 tests of Independence; ANOVA; chi-square tests; Shapiro–Wilk's; Levene's Test of Homogeneity of Variance; SPSS version 23;	Age; gender; diagnosed with stage I to III breast cancer, ductal carcinoma in situ (DCIS) and/or lobular carcinoma in situ (LCIS); experienced at least one negative event related to the changes that have occurred to their body after breast cancer; language;
(Muftin et al., 2022)	SPSS Statistics; intention-to-treat (ITT); v2-tests; MANOVA; ANOVA;	Gender, age, ethnicity, and education was collected;
(Offenbacher et al., 2021)	SPSS; t-test; per-protocol analysis (PPA);	Age; diagnosis of AD;
(Ridge et al., 2021)	GraphPad Prism software;	Age; diagnosis of chronic urticaria;
(Seekis et al., 2017b)	MANOVA; one-way ANOVA;	Age (17-25); language;
(Sherman et al., 2019)	SPSS version 25.0; Chi-square; t-test; R statistics software; ANCOVAs	Age, gender, education level, skin condition type, time since skin condition onset; whether treatment was received for the skin condition
(Zucchelli et al., 2021)	NVivo© software;	Age; gender; participants with a range of appearance-affecting conditions; language;

Reference	Analysis and Statistical Methods	Variables
(Kelly et al., 2009)	ANOVAs;	Age; facial acne; prescribed acne treatment perceived to be ineffective;
(D'Alton et al., 2019b)	Not discriminated	Age; diagnosis of psoriasis; systemic medication for 6 months or more;
(Singh et al., 2017)	SPSS version 18; Wilcoxon signed-rank test	Age (>15); moderate and severe chronic plaque psoriasis
(Larsen et al., 2014b)	SPSS version 19; t-tests; qui 2 statistics, or Mann–Whitney Utests; ANOVA; Cohen's d; ANCOVAs;	Age; gender; educational level; health status; disease duration
(Borimnejad et al., 2015)	Student's t-tests;	Age; diagnosis of vitiligo confirmed; ability to read and write;
(Melissant et al., 2021b)	SPSS version 26; Multiple regression model; Linear mixed;	Head and neck cancer (HNC) survivors;
(Bundy et al., 2013)	Análise de covariância (ANCOVA), intention-totreat (ITT), multiple imputation, multivariate logistic regression, Shapiro–Wilk test, Stata v12	

**Table 3.** Instruments used in the studies reviewed for this review.

Reference	Instruments
(Adkins, 2021)	The Body Appreciation Scale-2 (BAS-2); The Functionality Appreciation Scale (FAS); The Appearance Anxiety Index (AAI); The Skin Shame Scale (SSS); The Dermatology Quality of Life Index (DLQI);
(Ahmed et al., 2018)	HCP- questionnaire
(Clarke et al., 2020b)	Disgust Propensity and Sensitivity Scale – Revised (DPSS-R) Self-Compassion Scale – Short Form (SCS-SF) Depression Anxiety Stress Scales-21 (DASS-21)
(Da Silva et al., 2011)	Not discriminated
(Galhardo et al., 2022)	Escalas de Depressão, Ansiedade e Stresse-21 (EADS-21) Cognitive Fusion Questionnaire Chronic Illness - CFQ-CI; Trindade et al., 2018) Acceptance and Action Questionnaire - AAQ-II Escala de Autocompaixão (Self-Compassion Scale - SCS; Neff, 2003; versão portuguesa de Castilho & Pinto-Gouveia, 2011) Escala da Vergonha Relacionada com a Doença Crónica (Chronic Illness-related Shame Scale - CISS; Trindade et al., 2017)
(Harfensteller, 2022)	The Person-Oriented SCORing Atopic Dermatitis (PO-SCORAD) Patient-Oriented Eczema Measure (POEM) Perceived Stress Questionnaire (PSQ) The Freiburg Mindfulness Scale (FMI) The Hospital Anxiety and Depression Scale (HADS) Intervention Acceptability and Feasibility—Global Impressions of Change

<b>Reference</b>	<b>Instruments</b>
(Hedman-Lagerlöf et al., 2019)	Beck Anxiety Inventory (BAI) Montgomery Åsberg Depression Rating Scale Self-report (MADRS-S) Insomnia Severity Index (ISI) Quality of Life Inventory (QOLI) Client Satisfaction Questionnaire (CSQ-8)
(Hewitt et al., 2022)	Not discriminated
(Hudson et al., 2020)	CFT-based self-help intervention, for adults with heterogeneous skin conditions.
(Hughes et al., 2023)	Family Dermatology Life Quality Index (FDLQI); Children's Dermatology Life Quality Index (CDLQI);
(Łakuta, 2022)	Health Questionnaire [PHQ-9]; Mental Health Continuum–Short Form [MHCSF]; Self-Affirming Implementation Intention (S-AII); Body-Related Self-Affirming Implementation Intention (BS-AII);
(Mifsud et al., 2021b)	Body Image Scale (BIS: Hopwood, Fletcher, Lee, & Al Ghazal, 2001); The Body Appreciation Scale; Self-compassionate attitude (SCA); Self-Compassion Scale – Short Form (SCS-SF); Positive and Negative Affect Schedule (PANAS); Short form of the Depression, Anxiety and Stress Scale (DASS21);
(Muftin et al., 2022)	Other as Shamer Scale (OAS); The Forms of Self-Criticizing/Attacking & Self-Reassuring Scale (FSCRS); The Dermatology Life Quality Index (DLQI);
(Offenbächer et al., 2021)	Sociodemographics; Score of Atopic Dermatitis (SCORAD); Patient Oriented Eczema Measure (POEM); Dermatology Life Quality Index (DLQI); Hospital Anxiety and Depression Scale (HADS); Perceived Stress Questionnaire (PSQ); Freiburger Mindfulness Inventory (FMI); Mindful Attention Awareness Scale (MAAS); Global Transition Items;
(Ridge et al., 2021)	ABT programme manual; Depression and Anxiety Stress Scale (DASS 21); the Five Facets of Mindfulness Questionnaire (FFMQ); Urticaria Control Test; PERMA profiler;
(Seekis et al., 2017b)	State Body Appreciation Scale-2 (SBAS-2); Body Image States Scale (BISS);
(Sherman et al., 2019)	SelfCompassion Scale Short Form (SCS-SF); Positive and Negative Affect Schedule (PANAS); Body Image Disturbance Questionnaire;
(Zucchelli et al., 2021)	Not discriminated
(Kelly et al., 2009)	Depressive Experiences Questionnaire (DEQ); The Beck Depression Inventory (BDI); Experiences of Shame Scale (ESS); SKINDEX-16;
(D'Alton et al., 2019b)	The Hospital Anxiety and Depression Scale (HADS); The Penn State Worry Questionnaire (PSWQ); The Five Facet Mindfulness Questionnaire (FFMQ); The Fears of Compassion Scales (FCS); The World Health Organization Quality of Life-BREF (WHOQOLBREF); The Dermatology Life Quality Index (DLQI);

Reference	Instruments
	The Psoriasis Area and Severity Index (PASI);
(Singh et al., 2017)	Psoriasis Area Severity Index (PASI); Dermatology Life Quality Index (DLQI); WHO-5 well-being index (WHO-5); Patient health questionnaire (PHQ); Generalized anxiety disorder (GAD)-7;
(Larsen et al., 2014b)	Self-Administered Psoriasis Area and Severity Index (SAPASI); Self-management measured (heiQ); The Psoriasis Knowledge Questionnaire (PKQ); The Brief Illness Perception Questionnaire (BIPQ);
(Borimnejad et al., 2015)	General Health Questionnaire – 28 (GHQ-28);
(Melissant et al., 2021b)	Body Image Scale (BIS); Body Appreciation Scale (BAS-2); Self-Compassion Scale–Short Form (SCS-SF); Hospital Anxiety and Depression Scale (HADS), (HADS-A), (HADS-D); Female Sexual Function Index (FSFI-6); International Index of Erectile Function (IIEF-5);
(Bundy et al., 2013)	Hospital Anxiety Depression Scale (HADS) Self-Administered Psoriasis Area and Severity Index (SAPASI) Dermatology Life Quality Index (DLQI) Illness Perception Questionnaire

## 5. Discussion

The objective of this literature review is to investigate psychological interventions for the treatment of chronic dermatosis. Chronic dermatoses, especially psoriasis and vitiligo, have a significant impact on an individual's life, leading to depression, anxiety, an increased risk of suicide, experiences of stigma, tendencies towards isolation, and negative body image. All these factors can affect the individual's quality of life (Almeida et al., 2020) and may pose a risk of psychiatric morbidity (Ahmed et al., 2018). The difficulties faced by individuals with dermatosis regarding their self-image and social life are mentioned. In this sense, psychological intervention is essential. Among the interventions used in different articles, expressive writing-based intervention has the potential to promote a positive body image and increase self-compassion. Interventions based on Mindfulness, self-compassion, , and self-help demonstrate greater efficacy in the treatment of chronic dermatosis and can be a complementary tool for intervention. They are promising in addressing the psychological stress generated by the effects of chronic dermatosis on the skin, mitigating negative thoughts about body image, reducing feelings of shame, skin complaints, depression, and self-criticism, and improving quality of life levels. These interventions were also reported with higher participant satisfaction. While interventions based on Cognitive-Behavioral Therapy (CBT) show positive results, their

practice is general and non-specific, demonstrating significant effects only when applied in conjunction with mindfulness practices.

The revised studies present limitations identified that raise concerns about the viability of the studies. These include the frequently small sample sizes in a significant portion of the studies and the location where patient recruitment takes place. According to one study (Hedman-Lagerlöf et al., 2019), participants recruited in a clinical context exhibit lower symptom severity and show less improvement post-treatment. This suggests that treatments applied to individuals experiencing more distress may have a greater effect. Participants are often under the influence of antidepressant medication, and it is also important to consider that results can be influenced by the level of exacerbation of dermatosis at the time of assessment, given that dermatoses like psoriasis exhibit varying degrees of manifestation.

Considering the objective of this study, the analysis of the articles easily reveals the understanding and knowledge that experts have regarding the physical, psychological, and social impact of chronic dermatosis on an individual's life. However, the therapists' knowledge for assisting these patients is limited when it comes to determining the most suitable intervention. Despite the promising results observed in the studies, it would be important to develop more objective research with conclusive outcomes to enable better adaptation to the characteristics of the patient, as well as the use of feasible interventions.

The purpose of this literature review was to clarify which interventions demonstrate effectiveness in the treatment of patients with chronic dermatosis, with the aim of increasing knowledge in this field.

In future research, it would be important to conduct comparative studies between different psychological interventions to determine relative effectiveness, patient acceptability, and long-term outcomes. Evaluating the effectiveness of different intervention formats, such as in-person sessions, online videos, and remote interventions, is crucial to understanding the feasibility and efficacy of these approaches in different contexts and populations. Given the limited sample sizes and high dropout rates, it would be important to investigate factors influencing patient acceptance and participation in psychological interventions, considering barriers such as stigma, accessibility, and individual preferences. Finally, delving deeper into the relationship between improvements in dermatosis severity measures and the reduction of psychological distress would be a valuable avenue for exploration.

## References

- Adkins, K. V. (2021). Self-help targeting body image among adults living with dermatological conditions: An evaluation of a brief writing intervention.
- Adkins, K. V., Overton, P. G., & Thompson, A. R. (2022). A brief online writing intervention improves positive body image in adults living with dermatological conditions. *Frontiers in Medicine*, 9. <https://www.frontiersin.org/articles/10.3389/fmed.2022.1064012>
- Ahmed, A., Steed, L., Burden-Teh, E., Shah, R., Sanyal, S., Tour, S., Dowey, S., Whitton, M., Batchelor, J. M., & Bewley, A. P. (2018). Identifying key components for a psychological intervention for people with vitiligo—A quantitative and qualitative study in the United Kingdom using web-based questionnaires of people with vitiligo and healthcare professionals. *Journal of the European Academy of Dermatology and Venereology: JEADV*, 32(12), 2275–2283. <https://doi.org/10.1111/jdv.15168>
- Almeida, V., Leite, Â., Constante, D., Correia, R., Almeida, I. F., Teixeira, M., Vidal, D. G., Sousa, H. F. P. e, Dinis, M. A. P., & Teixeira, A. (2020). The Mediator Role of Body Image-Related Cognitive Fusion in the Relationship between Disease Severity Perception, Acceptance and Psoriasis Disability. *Behavioral Sciences*, 10(9), Artigo 9. <https://doi.org/10.3390/bs10090142>
- Ashwanikumar, B., Das, S., Punnoose, V., Basavaraj, U., Malathesh, B., Shoib, S., & Chatterjee, S. (2018). Interphase between skin, psyche, and society: A narrative review. *Indian Journal of Social Psychiatry*, 34(2), 99. [https://doi.org/10.4103/ijsp.ijsp\\_92\\_17](https://doi.org/10.4103/ijsp.ijsp_92_17)
- Baikie, K. A., & Wilhelm, K. (2005). Emotional and physical health benefits of expressive writing. *Advances in Psychiatric Treatment*, 11(5), 338–346. <https://doi.org/10.1192/apt.11.5.338>

- Ballone, G. J., & Ortolani, I. V. (2007). Da emoção à lesão: Um guia de medicina psicossomática. Em *Da emoção à lesão: Um guia de medicina psicossomática* (pp. 315–315). <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-927149>
- Baygildin, S. S., Musina, L. A., & Khismatullina, Z. R. (2021). Conflict of interest: The authors declare no conflict of interest. *Journal Biomed*, 17(1), 70–81. <https://doi.org/10.33647/2074-5982-17-1-70-81>
- Berry, M. P., Lutz, J., Schuman-Olivier, Z., Germer, C., Pollak, S., Edwards, R. R., Gardiner, P., Desbordes, G., & Napadow, V. (2020). Brief Self-Compassion Training Alters Neural Responses to Evoked Pain for Chronic Low Back Pain: A Pilot Study. *Pain Medicine*, 21(10), 2172–2185. <https://doi.org/10.1093/pm/pnaa178>
- Borimnejad, L., Firooz, A., Mortazavi, H., Aghazadeh, N., & Halaji, Z. (2015). The Effect of Expressive Writing on Psychological Distress in Patients with Vitiligo: A Randomized Clinical Trial. . . Volume, 1(1).
- Bundy, C., Pinder, B., Bucci, S., Reeves, D., Griffiths, C. E. M., & Tarrier, N. (2013). A novel, web-based, psychological intervention for people with psoriasis: The electronic Targeted Intervention for Psoriasis (eTIPs) study. *The British Journal of Dermatology*, 169(2), 329–336. <https://doi.org/10.1111/bjd.12350>
- Clarke, E. N., Thompson, A. R., & Norman, P. (2020a). Depression in people with skin conditions: The effects of disgust and self-compassion. *British Journal of Health Psychology*, 25(3), 540–557. <https://doi.org/10.1111/bjhp.12421>
- Clarke, E. N., Thompson, A. R., & Norman, P. (2020b). Depression in people with skin conditions: The effects of disgust and self-compassion. *British Journal of Health Psychology*, 25(3), 540–557. <https://doi.org/10.1111/bjhp.12421>

- Da Silva, A., Castoldi, L., & Kijner, L. (2011). A pele expressando o afeto: Uma intervenção grupal com pacientes portadores de psicodermatoses. *Contextos Clínicos*, 4(1), 53–63. <https://doi.org/10.4013/ctc.2011.41.06>
- D’Alton, P., Kinsella, L., Walsh, O., Sweeney, C., Timoney, I., Lynch, M., O’Connor, M., & Kirby, B. (2019a). Mindfulness-Based Interventions for Psoriasis: A Randomized Controlled Trial. *Mindfulness*, 10(2), 288–300. <https://doi.org/10.1007/s12671-018-0973-5>
- D’Alton, P., Kinsella, L., Walsh, O., Sweeney, C., Timoney, I., Lynch, M., O’Connor, M., & Kirby, B. (2019b). Mindfulness-Based Interventions for Psoriasis: A Randomized Controlled Trial. *Mindfulness*, 10(2), 288–300. <https://doi.org/10.1007/s12671-018-0973-5>
- Galhardo, A., Mendes, R., Massano-Cardoso, I., & Cunha, M. (2022). Processos relacionados com a regulação emocional e vergonha e sua associação com os sintomas de depressão, ansiedade e stresse em pessoas com psoríase. *Psychologica*, 65, e065004–e065004. [https://doi.org/10.14195/1647-8606\\_65\\_4](https://doi.org/10.14195/1647-8606_65_4)
- Harfensteller, J. (2022). An Open Trial on the Feasibility and Efficacy of a Mindfulness-Based Intervention with Psychoeducational Elements on Atopic Eczema and Chronic Itch. *Psych*, 4(2), Artigo 2. <https://doi.org/10.3390/psych4020014>
- Hedman-Lagerlöf, E., Bergman, A., Lindefors, N., & Bradley, M. (2019). Exposure-based cognitive behavior therapy for atopic dermatitis: An open trial. *Cognitive Behaviour Therapy*, 48(4), 300–310. <https://doi.org/10.1080/16506073.2018.1504320>
- Hewitt, R. M., Ploszajski, M., Purcell, C., Pattinson, R., Jones, B., Wren, G. H., Hughes, O., Ridd, M. J., Thompson, A. R., & Bundy, C. (2022). A mixed methods systematic review of digital interventions to support the psychological health and well-being of people

- living with dermatological conditions. *Frontiers in Medicine*, 9.  
<https://www.frontiersin.org/articles/10.3389/fmed.2022.1024879>
- Hudson, M. P., Thompson, A. R., & Emerson, L.-M. (2020). Compassion-focused self-help for psychological distress associated with skin conditions: A randomized feasibility trial. *Psychology & Health*, 35(9), 1095–1114.  
<https://doi.org/10.1080/08870446.2019.1707829>
- Hughes, O., Shelton, K. H., Penny, H., & Thompson, A. R. (2023). Parent and child experience of skin conditions: Relevance for the provision of mindfulness-based interventions. *British Journal of Dermatology*, 188(4), 514–523. <https://doi.org/10.1093/bjd/ljac129>
- Kelly, A. C., Zuroff, D. C., & Shapira, L. B. (2009). Soothing Oneself and Resisting Self-Attacks: The Treatment of Two Intrapersonal Deficits in Depression Vulnerability. *Cognitive Therapy and Research*, 33(3), 301–313. <https://doi.org/10.1007/s10608-008-9202-1>
- Knutsen-Larson, S., Dawson, A. L., Dunnick, C. A., & Dellavalle, R. P. (2012). Acne vulgaris: Pathogenesis, treatment, and needs assessment. *Dermatologic Clinics*, 30(1), 99–106, viii–ix. <https://doi.org/10.1016/j.det.2011.09.001>
- Łakuta, P. (2022). A Factorial Randomized Controlled Trial of Implementation-Intention-Based Self-Affirmation Interventions: Findings on Depression, Anxiety, and Well-being in Adults With Psoriasis. *Frontiers in Psychiatry*, 13.  
<https://www.frontiersin.org/articles/10.3389/fpsy.2022.795055>
- Larsen, M. H., Krogstad, A. L., Aas, E., Moum, T., & Wahl, A. K. (2014a). A telephone-based motivational interviewing intervention has positive effects on psoriasis severity and self-management: A randomized controlled trial. *British Journal of Dermatology*, 171(6), 1458–1469. <https://doi.org/10.1111/bjd.13363>

- Larsen, M. H., Krogstad, A. L., Aas, E., Moum, T., & Wahl, A. K. (2014b). A telephone-based motivational interviewing intervention has positive effects on psoriasis severity and self-management: A randomized controlled trial. *The British Journal of Dermatology*, 171(6), 1458–1469. <https://doi.org/10.1111/bjd.13363>
- Madden, S. K., Flanagan, K. L., & Jones, G. (2020). How lifestyle factors and their associated pathogenetic mechanisms impact psoriasis. *Clinical Nutrition (Edinburgh, Scotland)*, 39(4), 1026–1040. <https://doi.org/10.1016/j.clnu.2019.05.006>
- Melissant, H. C., Jansen, F., Eerenstein, S. E. J., Cuijpers, P., Lissenberg-Witte, B. I., Sherman, K. A., Laan, E. T. M., Leemans, C. R., & Verdonck-de Leeuw, I. M. (2021a). A structured expressive writing activity targeting body image-related distress among head and neck cancer survivors: Who do we reach and what are the effects? *Supportive Care in Cancer*, 29(10), 5763–5776. <https://doi.org/10.1007/s00520-021-06114-y>
- Melissant, H. C., Jansen, F., Eerenstein, S. E. J., Cuijpers, P., Lissenberg-Witte, B. I., Sherman, K. A., Laan, E. T. M., Leemans, C. R., & Verdonck-de Leeuw, I. M. (2021b). A structured expressive writing activity targeting body image-related distress among head and neck cancer survivors: Who do we reach and what are the effects? *Supportive Care in Cancer*, 29(10), 5763–5776. <https://doi.org/10.1007/s00520-021-06114-y>
- Mifsud, A., Pehlivan, M. J., Fam, P., O’Grady, M., van Steensel, A., Elder, E., Gilchrist, J., & Sherman, K. A. (2021a). Feasibility and pilot study of a brief self-compassion intervention addressing body image distress in breast cancer survivors. *Health Psychology and Behavioral Medicine*, 9(1), 498–526. <https://doi.org/10.1080/21642850.2021.1929236>
- Mifsud, A., Pehlivan, M. J., Fam, P., O’Grady, M., van Steensel, A., Elder, E., Gilchrist, J., & Sherman, K. A. (2021b). Feasibility and pilot study of a brief self-compassion intervention addressing body image distress in breast cancer survivors. *Health*

Psychology and Behavioral Medicine, 9(1), 498–526.

<https://doi.org/10.1080/21642850.2021.1929236>

Muftin, Z., Gilbert, P., & Thompson, A. R. (2022). A randomized controlled feasibility trial of online compassion-focused self-help for psoriasis\*. *British Journal of Dermatology*, 186(6), 955–962. <https://doi.org/10.1111/bjd.21020>

Offenbächer, M., Seitlinger, M., Münch, D., Schnopp, C., Darsow, U., Harfensteller, J., Schmid-Grendelmeier, P., Ring, J., & Kohls, N. (2021). A Pilot Study of a Mindfulness-Based Stress Reduction Programme in Patients Suffering from Atopic Dermatitis. *Psych*, 3(4), Artigo 4. <https://doi.org/10.3390/psych3040042>

Pancar Yuksel, E., Durmus, D., & Sarisoy, G. (2019). Perceived stress, life events, fatigue and temperament in patients with psoriasis. *The Journal of International Medical Research*, 47(9), 4284–4291. <https://doi.org/10.1177/0300060519862658>

Ridge, K., Conlon, N., Hennessy, M., & Dunne, P. J. (2021). Feasibility assessment of an 8-week attention-based training programme in the management of chronic spontaneous urticaria. *Pilot and Feasibility Studies*, 7(1), 103. <https://doi.org/10.1186/s40814-021-00841-z>

Rumsey, N., & Harcourt, D. (2004). Body image and disfigurement: Issues and interventions. *Body Image*, 1(1), 83–97. [https://doi.org/10.1016/S1740-1445\(03\)00005-6](https://doi.org/10.1016/S1740-1445(03)00005-6)

Seekis, V., Bradley, G. L., & Duffy, A. (2017a). The effectiveness of self-compassion and self-esteem writing tasks in reducing body image concerns. *Body Image*, 23, 206–213. <https://doi.org/10.1016/j.bodyim.2017.09.003>

Seekis, V., Bradley, G. L., & Duffy, A. (2017b). The effectiveness of self-compassion and self-esteem writing tasks in reducing body image concerns. *Body Image*, 23, 206–213. <https://doi.org/10.1016/j.bodyim.2017.09.003>

- Sherman, K. A., Przewdziecki, A., Alcorso, J., Kilby, C. J., Elder, E., Boyages, J., Koelmeyer, L., & Mackie, H. (2018). Reducing Body Image–Related Distress in Women With Breast Cancer Using a Structured Online Writing Exercise: Results From the My Changed Body Randomized Controlled Trial. *Journal of Clinical Oncology*. <https://doi.org/10.1200/JCO.2017.76.3318>
- Sherman, K. A., Roper, T., & Kilby, C. J. (2019). Enhancing self-compassion in individuals with visible skin conditions: Randomised pilot of the ‘My Changed Body’ self-compassion writing intervention. *Health Psychology and Behavioral Medicine*, 7(1), 62–77. <https://doi.org/10.1080/21642850.2019.1587298>
- Singh, S. M., Narang, T., Vinay, K., Sharma, A., Satapathy, A., Handa, S., & Dogra, S. (2017). Clinic-based group multi-professional education causes significant decline in psoriasis severity: A randomized open label pilot study. *Indian Dermatology Online Journal*, 8(6), 454–459. [https://doi.org/10.4103/idoj.IDOJ\\_68\\_17](https://doi.org/10.4103/idoj.IDOJ_68_17)
- Souza, I. (2020). Psicodermatoses: Uma análise dos aspectos fisiopatológicos, sociais e dos tratamentos multidisciplinares | Revista Eletrônica Acervo Científico. <https://acervomais.com.br/index.php/cientifico/article/view/5552>
- Thompson, A., & Kent, G. (2001). Adjusting to disfigurement: Processes involved in dealing with being visibly different. *Clinical Psychology Review*, 21(5), 663–682. [https://doi.org/10.1016/S0272-7358\(00\)00056-8](https://doi.org/10.1016/S0272-7358(00)00056-8)
- Trindade, I., & Teixeira, J. A. C. (2000). Aconselhamento psicológico em contextos de saúde e doença – Intervenção privilegiada em psicologia da saúde. *Análise Psicológica*, 18(1), 3–14. <https://repositorio.ispa.pt/handle/10400.12/5876>
- Ücker Calveti, P., Rivas, R., Coser, J., Barbosa, A., & Ramos, D. (2017). BIOPSYCHOSOCIAL ASPECTS AND QUALITY OF LIFE OF PEOPLE WITH

CHRONIC DERMATOSES. *Psicologia, Saúde & Doença*, 18(2), 297–307.

<https://doi.org/10.15309/17psd180202>

Zucchelli, F. A., Donnelly, O., Sharratt, N. D., Hooper, N., & Williamson, H. M. (2021).

Patients' Experiences of an Acceptance and Commitment Therapy-Based Approach for

Psychosocial Difficulties Relating to an Appearance-Affecting Condition. *The*

*European Journal of Counselling Psychology*, 9(1), 29–40.

<https://doi.org/10.46853/001c.22012>