

REVIEW ARTICLE

The Feasibility of an Interdisciplinary Approach on the Management of Psoriasis in South Africa

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ABSTRACT

Context • Psoriasis is an immune-mediated, inflammatory skin disease associated with comorbidities such as psoriatic arthritis, depression, obesity, and cardiovascular disease. Due to its visibility, psoriasis can induce stress and have a negative impact on a patient's quality of life. Current medical interventions are often ineffective and costly and are associated with undesirable side effects, thus emphasizing the need for innovative approaches to treatment.

Objective • The study intended to explore the feasibility of an interdisciplinary approach between dermatologists and somatologists in the holistic management of psoriasis.

Design • The research team performed a narrative review by searching for scientific articles in the databases Google Scholar, Scopus, PubMed, and Medline, including relevant observational studies, systematic reviews, randomized controlled trials, and meta-analyses on the diagnosis and management of psoriasis.

Setting • The review took place at Durban University of Technology library, Durban, South Africa.

Results • Psoriasis is a huge medical burden. It has a negative psychological impact on quality of life. Patients are not satisfied with the current treatment approach and they prefer alternative therapies. Spa therapy could be used in conjunction with medical therapy for the management of psoriasis. Through water or spa therapy, it has been shown that trace elements in mineral waters are absorbed through the skin and perhaps modulate the immune system.

Conclusions • The current review has provided some practical advice on how to manage psoriasis in a holistic manner. Somatology training institutions should consider incorporating Pso Well training in their program, thereby keeping abreast of new developments associated with psoriasis management. MBCT could be added to the set of holistic interventions for patients suffering from psoriasis, particularly those who suffer from poor psychological well-being. Robust clinical tests should be performed to evaluate the effectiveness of treatments, such as integrative patient management between the two professions. (*Altern Ther Health Med*. 2022;28(2):58-64).

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The skin is crucial for an individual's external protection as well as homeostasis.¹ Being an external organ, it's exposed to toxic insults such as ultraviolet radiation, infection, chemical exposure, and pollution.²⁻⁴ Physiological homeostasis is essential to maintain the integrity and health of skin¹; however, this may be disturbed, resulting in a variety of dermatoses, such as psoriasis, which can result in severe emotional distress and stigma.⁵

Psoriasis is an immune-mediated, inflammatory disease characterized by pronounced, scaly red plaques, that are surmounted by white scales that are sometimes pruritic and painful (Figure 1). It's associated with unhealthy lifestyle behaviors such as smoking, excess alcohol, and obesity.⁶⁻⁷

Psoriasis has a global prevalence ranging between 0.91% and 8.5% in various geographic regions.⁸ It's triggered by diverse factors, such as hereditary predisposition, stress,

Figure 1. Adult, Chronic, Plaque-type Psoriasis With Erythematous, Well-demarcated Plaques Covered With Silvery Scales. Photo courtesy of Professor Dlova, Nelson Mandela Medical School, University of KwaZulu-Natal, Durban, South Africa.



hormonal changes, immunological factors, and environmental factors, such as change in season, a dry environment, sun exposure, humidity, cold, and heat.⁶⁻⁸ A suboptimal lifestyle can have a negative impact on psoriasis.⁹

Due to its visibility, psoriasis can have both a social and a psychological impact. The negative impacts on quality of life (QoL) include those involving sexual well-being, physical and occupational stigmatization, low self-esteem, feelings of being embarrassed, and helplessness.⁹⁻¹¹

Although the etiology of psoriasis remains unclear, the interaction of several genetic, immunological, and environmental factors can contribute to its pathogenesis.^{12,13} Psoriasis is also associated with humidity because psoriatic flares are common in lower-humidity seasons and regions.¹⁴ Furthermore, psoriasis has been associated with an increased risk of metabolic syndrome and its components include diabetes mellitus, hypertension, cardiovascular disease, obesity and dyslipidemia, Crohn's disease, depression, chronic kidney disease, and smoking. Psoriasis arthritis is the most common comorbidity, affecting about 20-30% of people with psoriasis.¹⁵⁻¹⁷

Biological therapies are becoming the mainstay for the treatment of severe psoriasis. Dermatologists often view

psoriasis as an isolated skin condition rather than a complex systemic condition⁶ requiring discussion of lifestyle changes and management of stressful life events. This isolated treatment approach disregards the disease's complexity.

No primary research has been conducted on the necessity of a reciprocal approach between somatologists and dermatologists. It's plausible to consider that an effective treatment strategy for psoriasis requires a holistic treatment plan. Due to the nature of their training and scope of practice, dermatologists are unlikely to offer complementary approaches. In contrast, somatologists are trained to offer relaxation and stress therapies, which suggests a need for a reciprocal approach between somatologists and dermatologists and a major shift in mindset to the dermatologists' approach to psoriasis.

Universities of Technology (UoTs) across South Africa offer somatology (skincare) studies. Somatologists, often referred to as skincare therapists, are trained to work within the health and skincare industry.¹⁸⁻²³ Although diagnosis of pathological conditions isn't within their scope of practice, somatologists are trained to assess clients and provide relevant treatment for a wide variety of skin and body conditions.¹⁸⁻²³ Based on their experience, they can detect skin disorders and refer clients to registered skin specialists, such as dermatologists.

A somatological holistic-therapy approach ensures that multiple aspects of clients' needs are considered, including mind, body, soul, emotions, diet, and lifestyle. Their responsibilities include relational practices, such as pampering, morale boosting, and stress management.¹⁸⁻²³

The aim of the current review was to explore the feasibility of an interdisciplinary approach between dermatologists and somatologists in the holistic management of psoriasis.

METHODS

Procedures

This review was conducted in Durban University of Technology, Durban, South Africa. For the narrative review, the databases for more than 200 scientific human subject articles, using the English language were obtained. Google scholar, Scopus, PubMed, and Medline were searched. Relevant observational studies, systematic reviews, randomized controlled trials, and meta-analyses about the diagnosis and management of psoriasis were considered.

The key search terms used were psoriasis, quality of life, pathogenesis, stress, commodities, treatment, alternative treatment, somatologists, dermatologists, flotation tank, mud wrap, climatology, and balneotherapy. This search strategy was validated by a health sciences librarian. The study used no limitations based on participants' ages or genders or on the country in which the research had been conducted.

To be included, studies had: (1) to provide evidence about psoriasis, (2) to be written in English, (3) to be human studies, (4) to be in-vitro studies, and (5) to have adults as participants. Studies were excluded if they: (1) provided

incomplete reports, (2) were conducted with vulnerable populations, (3) covered oral interventions such as dietary supplements, or (4) had fewer than 20 references.

The research team perform three searches. Search 1 identified studies in the selected databases using the chosen search terms, and the librarian and the first author reviewed their abstracts, applying the inclusion and exclusion criteria. The team then obtained full copies of the included studies. To capture any recently published articles, the research team reviewed the references of the articles retrieved in the first search. Search 2 retrieved those articles and again the librarian and the first author reviewed their abstracts, applying the inclusion and exclusion criteria. Search 3 comprised retrieval of the full text of articles included.

RESULTS

The research team obtained more than 200 scientific articles with human participants that used the English language.

Somatology: Scope of Practice

Skincare therapy, somatology, is the study of the science of the human body. In South Africa, the somatology qualification is offered at the Universities of Technology (UoT) from qualification at an entry level to a national diploma to the highest qualification, a Master's degree.¹⁸⁻²³

The responsibilities of somatologists include assessment of clients to provide relevant programs to treat a wide variety of skin and body conditions, ranging from aesthetic to medical.¹⁸⁻²³ A holistic approach is the cornerstone of somatology treatment because it considers multiple aspects of a client's care, such as the person's body, mind, emotions, and lifestyle. The field of somatology encompasses teaching and learning about aspects of complementary health and wellness.

Disciplines in somatology through its diverse curriculum include anatomy and physiology, sociopsychology, hydrotherapy, balneotherapy, stress management, nutritional guidance, aromatherapy, reflexology, basic and specialized massage, manual lymph drainage, physical education, minor procedures in surgical removal, use of aesthetic lasers and lights, electrical and mechanical body contouring, facial treatments, and aesthetic enhancement.¹⁸⁻²³

Somatology's scope of practice doesn't permit diagnosis of medical conditions; however, through intense training in human anatomy and physiology, somatologists are able to detect and manage diseases and disorders and can refer clients to registered healthcare professionals as necessary.¹⁸⁻²³

Spa Therapy

Archaeological evidence supports the practice of thermal mineral water for bathing, well-being, and religious rites. The Egyptians, middle-eastern religious groups, Greeks, Turks, Persians, and even the British used and developed sources of thermal mineral water.²⁴ The word spa is an acronym for a Latin saying "Salus per aquam" meaning "health with the help of water."²⁵⁻²⁶

Spas are ideal places for rest and relaxation and recovery of health and strength, regardless of age and state of health, through having contact with nature and being surrounded by peace and quiet away from daily-life stressors. The emphasis is on prevention of disease.

Spa therapy forms a major aspect of complementary therapies, and its goal is to promote wellness aimed at renewing the body, mind, and soul and to induce relaxation.²⁷ A state of wellness improves an individual's health and quality of life and leads to physical and mental balance by inducing a state of complete physical, mental, and social well-being, including attitudes and actions to prevent disease.²⁸ Relaxation induces physiological changes that can minimize the deleterious effects of stress and reduce the risks of disease associated with it.²⁹⁻³¹

Currently, the spa combines classical techniques with innovative approaches, such as the introduction and implementation of new technology in bathtubs, swimming pools, showers, saunas, flotation tanks, and steam baths. These are used to allow the efficient optimization of thermal techniques and hydrotherapy facilities. Treatments in a spa are executed either by a spa therapist or a somatologist.

Flotation Therapy

Flotation-REST (Reduced Environmental Stimulation Therapy) is one of the spa's complementary therapies aimed at inducing relaxation by reducing stimulation of the human nervous system through minimizing all sensory signals.³² This effect is achieved through floating in a supine position in a pool of water, a flotation tank, that has been saturated with Epsom salts.

The float experience is adjusted so that sensory signals from visual, auditory, olfactory, gustatory, thermal, tactile, vestibular, gravitational, and proprioceptive channels are minimized, as is most movement and speech.³³ Physiological changes induced by relaxation have been found to minimize the deleterious effects of stress, thereby reducing the risk of diseases associated with that stress, such as autoimmune disorders, cardiovascular diseases, and neurodegenerative and behavioral disorders.³⁴

While buoyancy effects decrease the effects of body weight, reducing muscle tension, hydrostatic pressure contributes to relaxation due to the pressure gradient, which facilitates venous and lymphatic return and minimizes the peripheral accumulation of fluid. Warm water temperature can accentuate the feeling of well-being and optimize circulation and may have analgesic effects, thus enhancing relaxation and de-stressing.^{32,34} In some European countries, Flotation-REST is accepted as a medical treatment, and its effects have been associated with evidence-based benefits, such as pain and stress reduction.³⁵

Collectively, these findings suggest that flotation-REST may have the potential to be a viable management approach therapy for relieving symptoms of anxiety and depression. The nonpharmacological nature of Flotation-REST, combined with its lack of side effects, ease of use, and rapid onset of

benefits, are additional positive attributes that may further improve treatment use and adherence.³⁴ Flotation-REST could possibly be combined with a psoriatic medical regimen. Keeping stress levels low and inducing relaxation could help prevent flares of disease.

Balneotherapy

Balneotherapy forms part of hydrotherapy treatments in a spa. It's a therapeutic bath that involves the immersing of an individual in mineral water or mineral mud for the treatment of a specific condition. It started being used in the 1800s, first in Europe and then in the United States.^{24,36}

Although not accepted as a well-established treatment modality due to the paucity of clinical trials, thermal balneotherapy is used throughout the world in psoriatic therapy because of its ability to offer a natural, multifactorial, complementary, and nontoxic alternative to traditional pharmacological treatments.³⁷ The most important attribute of the therapy for psoriatic patients is safety; many of them accept with enthusiasm the possibility of safe natural treatments, even if of limited efficacy.

Dead Sea mud has a high concentration of minerals, which makes it popular and attracts people worldwide who seek a cure for several skin diseases.^{38,39} Currently, Dead Sea mud forms part of balneotherapy in many spas because it has been found to exert important beneficial effects, including stimulation of the expression of numerous anti-aging genes and anti-inflammatory action as well as moisturizing effects, hence it is often in cosmeceuticals.³⁸⁻⁴¹

Mud applications in the form of packs and baths, with the head not being immersed, have been used to help people with a variety of complaints, including musculoskeletal disorders, rheumatic diseases, and gynecological disorders as well as psoriasis. The most common indicated treatments are moor mud baths.^{41,42} With use of dead sea mud, a notable increase in mineral levels in the skin can occur, such as magnesium and bromine compounds.⁴⁰ Both these compounds might play a vital role for psoriatic skin.⁴⁰

Psoriasis and Stress

Psoriasis is a disabling disease, which may interfere with daily activities, resulting in increased levels of social stigmatization and psychological stress. Due to its visibility, psoriasis can bring about a negative impact on quality of life and result in adverse psychosocial behaviors, such as anxiety, depression, embarrassment, reduced self-esteem, and suicidal thoughts.^{1,8,43} Ayuverdic scripture describes an ancient existing association between the mind and the skin; mental stress due to any cause can have a direct impact on the skin.¹ Moreover, some studies have shown that patients who suffer from psoriasis have increased risks of psychiatric disease and suicidal ideation compared to patients suffering from other dermatological diseases.^{44,45} Psoriasis has been intensively studied for this association of mind and body, and in all studies, a common trend has emerged indicating that stress is often a trigger for psoriasis.^{9,11,46-51}

Many studies have suggested the detrimental role of stress on psoriasis, which suggests that an effective treatment plan for psoriasis should aim at a holistic intervention for the improvement of total well-being. It's essential to promote the various pharmacological as well as nonpharmacological strategies for treatment, including relaxation therapies, to educate patients about psoriasis so that they can cope with its adverse consequences. Stress-relief interventions can lead to changes in the cortisol responses of highly distressed individuals, thereby improving psoriatic severity.⁴⁶

Health Literacy

Holistic care of people with psoriasis requires an in-depth knowledge of the disease, including lifestyle behaviors and management of associated risk factors. As indicated previously, dermatologists tend to view psoriasis as an isolated skin disease rather than a complex systemic condition⁶ due to the nature of their training; however, the nature of the disease requires discussion of lifestyle and socialization choices. Lifestyle improvement for patients with psoriasis should cover multiple areas, including diet, smoking, alcohol, and relaxation techniques.⁶

In an attempt to raise awareness and to provide support to people with psoriasis, the commercially developed, Psoriasis and wellbeing (Pso Well®) training (Psoriasis Association, England, United Kingdom) has been developed and is aimed at equipping dermatology specialists and healthcare workers with knowledge and motivational interviewing skills to empower patients with psoriasis to manage their conditions effectively through behavioral lifestyle changes.⁵²

Clinicians who have attended the training acknowledge that their knowledge and skill in managing psoriasis holistically has improved.⁶ Patients have also valued its theory-based resources for patients, and these can help improve their understanding, consistent behavior and sense of control, without a corresponding increase in anxiety.⁷ Dealing with psoriatic patients should be interdisciplinary; however, dermatologists should make it their responsibility to initiate this process.⁶

Adherence to Medication

Medication nonadherence is a hidden problem and remains a challenge in clinical practice when treating patients living with chronic inflammatory skin conditions, including psoriasis.⁵³⁻⁵⁶ Patients are often less than open about their medication usage because they fear adverse consequences. Unfortunately, this behavior often results in missed opportunities to optimize the efficacy of a treatment, and dermatologists should embrace a nonjudgmental approach and accept nonadherence as the norm.^{54,55}

A longitudinal cohort study of patients with psoriasis conducted using Medicaid data from North Carolina also examined predictors of adherence. Affordability of the medication was mentioned as one reason for nonadherence. Healthcare costs associated with prescriptions are high and not easily affordable to patients who have no medical aid⁵⁶;

also, it has been observed that patients on self-administered medication are more likely to discontinue their treatment compared to those under the supervision of a doctor.⁵⁵

In a commentary on nonadherence, it has been stated that psychological distress due to a patient's inability to manage his or her condition can result in reduced motivation; moreover, patients can become concerned about the nature or impact of a treatment. Furthermore, patients need to be able to manage real-life demands on their time and energy, whether be it in their relationships or at work, and the treatment's impact can add to their distress.⁵⁴ More often such issues are often disregarded and undertreated.⁵⁶ A holistic approach should be implemented when dealing with psoriasis because it takes the whole body into account, including the mind, body, and soul.

Holistic Wellness Approach

Given the scope of somatologists, it's plausible to believe that they can become involved in the management of psoriasis. Somatology's holistic approach allows a multifaceted treatment suitable to a multisystem disease such as psoriasis. While dermatologists prescribe medicines, somatologists manage a patient's well-being.

Although a psychological approach through counseling services is the most preferable method for dealing with emotional stress, touch and relaxation therapies, such as massage, hydrotherapy, aromatherapy, and balneotherapy that are offered by somatologists in a relaxed spa environment, could be a more effective approach. Studies have demonstrated that healing through touch therapy is associated with both physiological and psychological relaxation.⁵⁷⁻⁶⁰

In South Africa, somatology isn't currently regulated by a professional board, but somatologists take into consideration the guidelines from the Allied Health Professions Act 63 of 1982 in South Africa⁶¹ when performing treatments because they treat a variety of skin. Holistic principles consider the individual in three dimensions; namely, body—physical structures and biological processes, mind—psychological processes, and soul—a connection to deeper meaning and purpose in life.⁶² Furthermore, since the literature has indicated that psoriatic patients may be prescribed expensive medication, it would be a good idea to provide an alternative stress therapy at an affordable value.

While many studies are investigating effective treatment for relief from psoriasis, data are emerging on addressing the psychological aspects of psoriasis. Stress isn't treated through traditional medical approaches. Clinical assessments, such as the Psoriasis Area and Severity Index (PASI), don't adequately measure the effects of the disease on patients' lives but only provide an index of the clinical severity of the disease based on clinical appearance.

Stress-relief therapy may lead to alterations in cortisol levels of highly distressed psoriasis patients, which may in turn positively affect quality of life contributing to the reduction of treatment duration. Recently, stress management therapy has been the emphasis of an adjunct treatment in an

effort to reduce psoriatic flares and improve patients' quality of life.^{8,29} In this regard, somatology's holistic approach should be considered because it encompasses mind-body interventions in alternative medicine. This technique refers to a number of skills collectively aimed at increasing the ability of the human mind to influence body functions and the symptoms of illness.

Mindfulness based cognitive therapy (MBCT). MBCT is an alternative stress-reduction intervention aimed at enhancing cognitive flexibility. MBCT is derived from Buddhist meditative traditions.⁶³ Because psoriasis is thought to be exacerbated by stress, such an intervention could be regarded as effective if the severity of psoriasis improves. Through meditation, the mind is focused on techniques to enhance mindfulness. This is achieved by developing a skill in recognizing and disengaging from self-perpetuating patterns of rumination and promoting a more accepting attitude toward experience as opposed to experiential avoidance.⁶⁴

Several studies have investigated the effects of MBCT on psoriasis and have shown improvement in QoL and reduction in stress, which results in turn in reduced severity of psoriasis.⁶⁴⁻⁶⁶ These outcomes are in accordance with the view that an enhanced perceptual mode through meditation can help patients suffering from psoriasis to gain awareness of their sensations and can result in an acceptance of the physical state and reduce levels of psoriasis.⁶⁶

Patients with psoriasis often consider stress to be a trigger for the first occurrence or worsening of the disease, and many patients find help and relief by practicing some of MBCT's techniques.^{62,66}

Hydration therapy. As the barrier function on psoriatic skin is compromised, hydration therapy becomes a key factor. Balneotherapy's effects using Dead Sea mud could help enhance the cutaneous barrier function as well as address hydration of the stratum corneum.^{16,21} Natural ingredients such as aloe vera have demonstrated moisturizing qualities, which are helpful in restoring the disturbed skin's barrier function⁶⁷; furthermore, aloesin from aloe vera has proven able to positively regulate the release of cytokines and growth factors from macrophages and enhance angiogenesis in endothelial cells.⁶⁸

Other treatments. Other holistic treatments used in management of psoriasis include aromatherapy, meditation techniques, massage, spa therapies, mud baths, and flotation tanks. Aromatherapy uses therapeutic blends of oils to allow healing and relaxation and to lift a patient's mood.⁶⁹ Meditation techniques focus on breathing, and as discussed previously with respect to MBCT, this technique helps to teach patients to focus their attention and maintain positive thinking. It's believed that patients practicing meditation can detach from the negative emotions associated with psoriasis.^{68,69}

Manipulative techniques are beneficial because they can be used to reduce pain and increase joint mobility in the case of psoriatic arthritis. Massage is the most popular technique used.⁷⁰ It involves the manipulation of the upper layers of muscle and connective tissue, which in turn helps to enhance relaxation and

improve lymphatic circulation as well as increase functionality. Acupressure involves the application of gentle pressure on key points of the body to reduce pain and stress and gain circulation and stimulation of the immune system.^{5,70}

These treatments ought to be offered by experienced somatologists in a spa environment to properly perform the necessary massage. Spa treatments usually include manipulative techniques in their programs, mostly massage, which contributes to the overall positive effects of the spa's treatments.

DISCUSSION

Psoriasis is a multisystem disease that is currently incurable and which modern medicine can control only. Increased stress has been demonstrated to have a negative impact on psoriasis.

Alternative stress-management therapies such as balneotherapy and flotation tanks can be effective. To improve the well-being and quality of life of people suffering with psoriasis, it's imperative to include relaxation therapies as part of their treatment regimen. Relaxation techniques and spa therapies are performed by somatologists.

Through water or spa therapy, it has been shown that trace elements in mineral waters are absorbed through the skin and perhaps modulate the immune system.⁴⁶

This view indicates an unmet need to form referral networks in a multiprofessional team when dealing with psoriasis so that the patient can be treated holistically. Dermatologists need to embrace all available therapeutic options including somatology and refer patients appropriately. A medical approach alone may be inadequate for psoriasis; patients are often desperate and may seek alternative complementary spa treatments.

CONCLUSIONS

The current review has provided some practical advice on how to manage psoriasis in a holistic manner. Somatology training institutions should consider incorporating Pso Well training in their program, thereby keeping abreast of new developments associated with psoriasis management. MBCT could be added to the set of holistic interventions for patients suffering from psoriasis, particularly those who suffer from poor psychological well-being. Robust clinical tests should be performed to evaluate the effectiveness of treatments, such as integrative patient management between the two professions.

AUTHORS' DISCLOSURE STATEMENT

Authors indicate that they have no potential conflicts of interest.

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