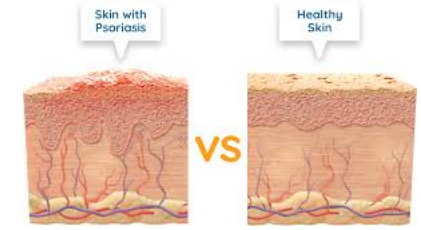


Efficacy of Adjuvant Mindfulness Techniques in the Treatment of Adult Patients with Psoriasis

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Abstract

Psoriasis is a multisystem chronic inflammatory condition characterized by pruritic rashes and associated with significant comorbid conditions. Psoriasis can be triggered or exacerbated by stress which can in turn perpetuate the cycle of the disease. Many pharmaceutical options have significant side effects and/or adverse effects which may add to difficulties associated with the burden of psoriasis. This meta-analysis examined the following:

In adults ≥ 18 years of age who are diagnosed with moderate to severe plaque psoriasis, does supplementing treatment with mindfulness techniques significantly reduce the severity and degree of symptoms and flare-ups?

Introduction

- Inappropriate activation of T cells, cytokines, and inflammatory markers causing hyperproliferation of skin
- Moderate to severe psoriasis affects $\geq 5\%$ total body surface area
 - 1.5 million Americans diagnosed
 - Comorbidities include arthritis, cardiovascular disease, renal disease, hypertension, etc.

Methods

- Literature search in November of 2019 conducted through the following sources:
 - Pubmed
 - SpringerLink
 - EBSCOhost
- Search Terms Included:
 - “Psoriasis AND treatment AND mindfulness”
 - “Psoriasis AND stress reduction”
 - “Psoriasis AND mindfulness AND therapy OR interventions OR treatment”
- Inclusion Criteria
 - Within the last 10 yrs
 - Scientific Source
- Exclusion Criteria
 - Systematic reviews or meta-analysis
 - Reports

Results

D’Alton P, Kinsella L, Walsh O, et al. Mindfulness-Based Interventions for Psoriasis: a Randomized Controlled Trial. *Mindfulness*. 2018;10(2):288-300. doi:10.1007/s12671-018-0973-5.

94 participants were included in this study. Participants were assigned to a mindfulness based intervention group, or a treatment as usual group. Each group received weekly 2 hour group sessions for 8 weeks. Participants in the MBI group reported benefit from treatment whereas the researchers felt there was no significant change.

Fordham B, Griffiths C, Bundy C. A pilot study examining mindfulness-based cognitive therapy in psoriasis. *Psychology, Health & Medicine*. 2015;20(1):121-127. doi:10.1080/13548506.2014.902483.

29 Participants were included in an 8 week pilot study. Participants were assigned to a MBCT or TAU group. The MBCT group engaged in 45 minute daily mindfulness exercises. The researchers found that the MBCT group had a 39% reduction of psoriasis symptoms.

Hotvedt, Tarjei. “Combining Mindfulness and Ultraviolet Phototherapy (UVB) in the Treatment of Moderate Psoriasis. A Pilot Study of Patients Experiences of the Disease and Treatment.” *UiT The Arctic University of Norway*, 2017.

16 participants were separated into two groups, one receiving phototherapy treatment only, the other receiving mindfulness treatment in addition. The results demonstrated improvement of symptoms in both groups.

Maddock A, Hevey D, D’Alton P, Kirby B. A Randomized Trial of Mindfulness-Based Cognitive Therapy with Psoriasis Patients. *Mindfulness*. 2019. doi:10.1007/s12671-019-01242-3.

101 participants were involved in this study. Participants were assigned to either a TAU group or MBCT group for 8 weeks. The MBCT group received TAU and participated in weekly 2 hour meetings with facilitators and prompted to listen to 45 minutes of activities 6 days a week. MBCT was shown to be a beneficial adjuvant therapy.

Nagarajan P, Thappa DM. Effect of an educational and psychological intervention on knowledge and quality of life among patients with psoriasis. *Indian Dermatol Online J*. 2018;9(1):27-32.

50 participants were involved in a cluster analysis. 12% reported stress exacerbated their symptoms. This research offered insight into the multidisciplinary approach to treating patients.

Piaserico, S., Marinello, E., Dessi, A., Linder, M. D., Coccarilli, D., & Peserico, A. (2016). Efficacy of biofeedback and cognitive-behavioural therapy in psoriatic patients a single-blind, randomized and controlled study with added narrow-band ultraviolet B therapy. *Acta dermato-venereologica*, 96(217), 91-95.

55 patients participated in either narrow-band UVB phototherapy, or phototherapy in addition to CBT for 8 weeks duration. Improvement was seen in both groups, and treatment impacts were more profound and longer lasting

Discussion

While the results were not conclusive, the majority of patients found mindfulness to be beneficial to their quality of life and/or psoriasis symptoms. None of the studies reported adverse or negative health effects. Due to the ambiguity of the studies in defining MBT and mindfulness, lack of knowledge of the mechanism of MBT on psoriasis, and discrepancies among studies, the efficacy of treating psoriasis with MBT cannot be confirmed. Further studies are needed to determine whether adjuvant MBT may be superior to treatment as usual (TAU) in treating patients with psoriasis; however, its potential clinical benefit is evident.

Conclusion

Results were largely inconclusive for the direct mechanism of MBT on psoriatic symptoms, but there is significant finding that mindfulness has a positive utilization in healthcare. The six studies in this meta-analysis demonstrated the potential clinical benefit of MBT in the treatment of psoriasis.

Summary Of Results: Adjuvant Mindfulness Therapy vs. Treatment as Usual

Study	Psoriasis Symptoms	Psoriasis Symptoms Mindfulness Group	Psychological Well Being	Stress and Anxiety	Healthcare Utilization
D’Alton et al (2019)	NS	NS	NS	NS	NS
Fordham, Griffiths (2015)	S	S	S	S	S
HoTvedt (2017)	S	S	S	S	S
Maddock et al (2019)	NS	S	S	N/A	S
Nagarajan (2018)	N/A	N/A	S	S	S
Piaserico et al (2016)	S	S	S	NS	S

KEY:

S=Significant NS= Not significant	Psoriasis Symptoms S= Improvement in psoriasis symptoms in both groups NS= No reduction in psoriasis symptoms or increase in symptoms in both groups	Psoriasis Symptom Mindfulness Group S= The experimental group had a greater improvement in symptoms as compared to the TAU NS= The experimental group had similar or less improvement compared to the control group	Psychological Well Being S= Improvement in psychological well-being pre vs post mindfulness therapy in the experimental group was higher than the control NS= No change, or decrease, in psychological well-being pre vs post mindfulness therapy in the experimental group compared to the control	Stress S= Reduction in stress pre vs post treatment NS= No reduction, or increase, in stress pre vs post treatment	Healthcare Utilization S= Utility as an adjuvant treatment for patients NS= No efficacy as an adjuvant therapy
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