

Concise Communication

Integrative Treatments for Atopic Dermatitis: A Cross-Sectional Analysis of r/Eczema and r/EczemaCures

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Relevance

Social media has become a popular way for patients with chronic diseases like atopic dermatitis (AD) to find community, share stories, and seek advice. Discussions of integrative treatment methods for AD are common on r/Eczema and r/EczemaCures, two subcommunities focused on AD within the larger social media platform Reddit.

Objective

Our goal is to characterize trends in online discussions of integrative therapies for AD found on r/Eczema and r/EczemaCures.

Methods

We performed a cross-sectional analysis of 217 posts uploaded to r/Eczema and r/ EczemaCures discussing integrative AD therapies. Information collected and analyzed included treatment discussed, anecdotal outcome, side effects, use as an adjunct or alone, and references to scientific literature.

Results

AD patients on r/Eczema and r/EczemaCures expressed the greatest interest in pursuing complementary/alternative topical therapies. Vitamins/supplements and dietary modifications were also commonly discussed on these forums. Some of the most frequently mentioned treatments included oat-containing remedies, probiotics, elimination diets, and meditation/stress reduction. Patients were likely to have tried multiple different treatment methods, and 73.6% of experiences with integrative therapies resulted in some degree of symptom relief or complete resolution. Side effects were discussed 6.4% of the time and references to scientific literature within forum posts was rare, with only 2.6% of claims/questions citing the literature/another reputable source.

Conclusions

As patients increasingly turn to the internet for medical advice, dermatologists should be aware of social media dermatology trends. Our analysis highlights that AD patients are interested in various integrative therapies including topicals, supplements, dietary modifications, and meditation/stress reduction. By better understanding patients' needs, concerns, and experiences, dermatologists can ask more specific questions, provide tailored education, and build a stronger patient-physician relationship.

INTRODUCTION

Atopic dermatitis (AD), or eczema, is a chronic inflammatory skin condition causing pruritus, inflammation, dryness, and redness. AD is most common in pediatric patients, but is also common in adults, with prevalence increasing in developed countries in recent years. Conventional treatment methods for AD such as topical corticosteroids, immunosuppressants, and antibiotics are not without risks, and even with treatment, AD can significantly

impact quality of life. Patients commonly report sleep disturbances, impacts on self-esteem/confidence, and activity limitations as a result of their AD.¹ Consequently, patients with AD often seek alternative and complementary therapies, with studies suggesting over half of AD patients pursue such treatments.²

Reddit, a popular social networking website, is unique from many other popular social media platforms in that users can anonymously share experiences and internet users can use the website to seek advice/information with or without an account. Within Reddit, "subreddits" are smaller communities dedicated to specific topics. The subreddit r/Eczema focuses on discussions surrounding "experiences, treatments, coping methods, and life with eczema" and has 94,000 members as of August 21, 2024.³ A previous analysis of posts on r/Eczema found that the most commonly discussed topics were non-pharmacologic management strategies including dietary modifications, over the counter products, supplements, and hygiene practices.⁴ By analyzing posts in AD-related subreddits, we aim to better understand patients' attitudes towards integrative therapies and gather insights that will help physicians effectively address patient concerns and offer tailored education.

METHODS

An analysis of the subreddit communities r/Eczema and r/ EczemaCures (6,500 members) was performed on August 20th, 2024. Another AD-related subreddit, r/AtopicDermatitis, was excluded from our analysis due to its size (only 673 members) and lack of activity/posts in over a year. A total of 217 posts uploaded to Reddit (186 from r/Eczema and 31 from r/EczemaCures) between August 2018 and August 2024 were included in our analysis. Posts were included only if they contained an anecdotal experience with or asked a question about an integrative treatment for AD. Comment sections were not analyzed, and posts not discussing integrative treatment were excluded. Information collected from posts included treatment category (topical, systemic, diet, etc, specific treatment, whether or not posts referenced scientific literature, anecdotal treatment outcomes, whether or not treatment was used as an adjunct to conventional AD treatment(s), and any discussion of adverse events/side effects.

RESULTS

Many users mentioned multiple integrative therapies in a single post. Our analysis of 217 Reddit posts revealed 439 patient stories and 61 questions about integrative AD treatments. Of the reported experiences, 281 (64%) led to symptom relief, 42 (9.6%) resulted in complete symptom resolution, 104 (23.7%) showed no improvement, and 12 (2.7%) resulted in exacerbation/worsening of symptoms. Scientific references were cited a total of 13 times across only 3 separate forum posts (1 post mentioned 11 different treatments with citations).

Whether alternative therapies were used alone or as an adjunct to conventional AD treatments was disclosed by 129 Reddit users, with 48 users reporting using alternative therapies in conjunction with conventional treatments and 81 reporting using alternative therapies in place of conventional methods. Side effects of integrative therapies were discussed in 32 (6.4%) posts. Some of the most commonly mentioned side effects were local irritation/stinging, itching, unpleasant smell, and temporary skin discoloration.

Topical treatments (198 experiences, 28 questions) were the most frequently mentioned, followed by systemic treatments (118 experiences, 16 questions) and diets (78 ex-

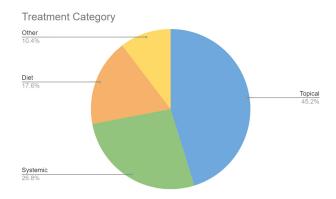


Figure 1. Distribution of integrative treatment categories mentioned in 217 Reddit posts from r/Eczema and r/EczemaCures

periences, 10 questions). "Other" treatments like tanning, acupuncture, meditation, and stress reduction accounted for 45 experiences and 7 questions. The distribution of treatment categories mentioned in our analysis is shown in Figure 1.

The most commonly mentioned topical treatments included oat-containing products/oatmeal baths (25 posts), coconut oil (21 posts), and hypochlorous acid spray (16 posts). Of the oral/systemic therapies, probiotics were mentioned in 21 posts, omega-3/fish oil in 12, and vitamin D in 11. The most commonly discussed dietary modifications included dairy elimination (13 posts), carnivore/keto/low-carb (11 posts), and alcohol elimination (10 posts). In the "other" category, the most commonly discussed treatments were meditation (9 posts) and stress reduction (9 posts). Cooling the skin was mentioned 14 times, though the exact treatment method was variable (cold showers, ice, cryotherapy, and cold compresses). A summary of the frequency with which various integrative therapies were mentioned in our analysis is shown in Figure 2.

DISCUSSION

Complementary/alternative medicine is becoming increasingly popular, especially among patients with chronic/relapsing diseases that are challenging to treat or have standard treatments with undesirable side effects, such as AD.² Factors driving this growth in popularity may include dissatisfaction with conventional treatments, distrust in conventional medicine, preference for natural methods, high healthcare costs, and greater access to information about these treatments online.^{5,6} As internet access expands, the use of social media as a healthcare tool is also likely to grow in popularity. The largest AD-related community on Reddit, r/Eczema, has grown from 72,000 members in January 2024 to 94,000 in August 2024, reflecting the public's increasing interest in using social media for medical advice.⁷ Several factors contribute to this trend, including high costs of healthcare, lack of access to healthcare, ease and immediacy of internet access, and ability to maintain anonymity by using pseudonyms.^{8,9} Given the ongoing rise in popular-

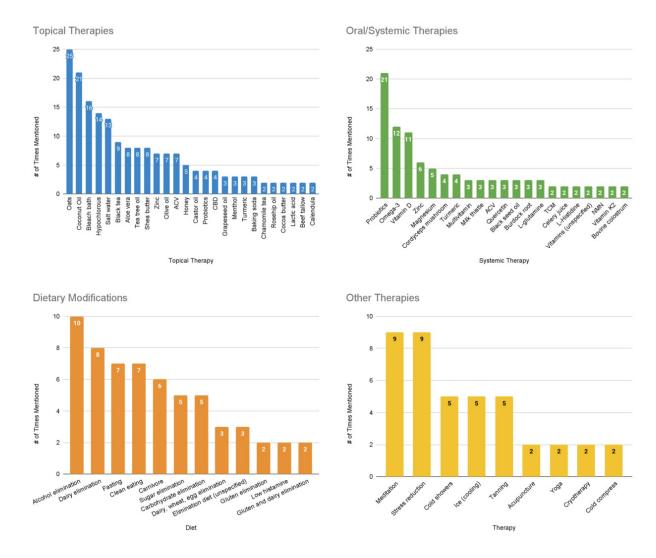


Figure 2. Number of times specific integrative therapies were mentioned in 217 Reddit posts from r/Eczema and r/EczemaCures (ACV = apple cider vinegar, TCM = Traditional Chinese medicine, NMN = Nicotinamide mononucleotide)

ity of both social media as a healthcare tool and integrative medicine, it is unsurprising that discussions of complementary/alternative therapies are plentiful on sites such as Reddit.

Social media gives patients with chronic conditions an opportunity to connect and also provides the public with more access to information than ever before. However, this ability to access a seemingly endless amount of information at our fingertips is not without drawbacks. Recent analyses of dermatology-related content posted online have found much of this content to be fraught with misinformation and is unlikely to come from a dermatologist. In our analysis of posts on r/Eczema and r/EczemaCures, only 2.6% of claims/ questions about integrative therapies for AD referenced scientific literature. This underscores the importance of staying informed about social media trends pertaining to dermatology in order to ask better questions, more accurately target patient concerns, and provide tailored patient education.

Our analysis highlights strong patient interest in integrative treatment methods for AD, particularly topical treatments, vitamins/supplements, and dietary modifications. Patients may use complementary/alternative therapies as adjuncts to or in place of conventional treatments, and many patients try more than one method.

Limitations of our analysis include self-reporting of patient experiences/outcomes without a standardized evaluation scale or ability to validate outcomes and lack of standardization for factors including dose, frequency, and treatment duration. The anonymous nature of Reddit also makes it impossible to analyze baseline characteristics of patients/users. It is also important to remember that the population of AD patients using Reddit may not represent the broader AD patient population.

CONCLUSIONS

Patients with chronic conditions like AD use social media sites like Reddit to share experiences, seek advice, and find community. In AD-related online communities like r/ Eczema and r/EczemaCures, discussions of complementary/ alternative treatments are common, likely due to challenges in achieving adequate symptom control and undesirable side effects associated with standard treatments. AD patients express particular interest in using topical therapies, vitamins/supplements, and/or dietary modifications to manage their symptoms. Some of the most frequently

discussed integrative AD therapies on Reddit include oatcontaining remedies, probiotics, alcohol elimination, and meditation/stress reduction. With these trends in mind, dermatologists should remember to ask AD patients about integrative therapies and provide accurate information to ensure patient safety and improve patient outcomes.

STATEMENTS AND DECLARATIONS

We confirm that this manuscript is original, has not been published previously or under consideration by another journal, does not infringe upon any copyright of a third party, and will not be published elsewhere whether online or in print once accepted.

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DISCLOSURES

PL reports being on the speaker's bureau for AbbVie, Arcutis, Eli Lilly, Galderma, Hyphens Pharma, Incyte, La Roche-Posay/L'Oréal, Pfizer, Pierre-Fabre Dermatologie, Regeneron/Sanofi Genzyme, Verrica; reports consulting/advisory boards for Alphyn Biologics (stock options), AbbVie, Almirall, Amyris, Arcutis, ASLAN, Bristol-Myers Squibb, Burt's Bees, Castle Biosciences, Codex Labs (stock options), Concerto Biosci (stock options), Dermavant, Eli Lilly, Galderma, Janssen, LEO Pharma, Lipidor, L'Oréal, Merck, Micreos, MyOR Diagnostics, Regeneron/Sanofi Genzyme, Sibel Health, Skinfix, Suneco Technologies (stock options), Theraplex, UCB, Unilever, Verdant Scientific (stock options), Verrica, Yobee Care (stock options). In addition, Dr. Lio has a patent pending for a Theraplex product with royalties paid and is a Board member and Scientific Advisory Committee Member emeritus of the National Eczema Association.

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