

ABSTRACT

Eczema is a chronic condition that causes itchy, inflamed skin and often leads to hyperpigmentation. It affects all races but has a higher prevalence and psychological burden in Black individuals. This study uses a quantitative and qualitative approach to explore the triggers and emotional effects of eczema and hyperpigmentation in Black individuals. The study calls for inclusive research, clinical representation, and culturally competent care.

INTRODUCTION

Atopic dermatitis, commonly known as eczema, usually appears in folds of the skin, but it can also show up in more visible places such as the hands, and face. Flare-ups are often triggered by changes in temperature, skin irritation, or even diet. While there's no cure for eczema, keeping the skin adequately moisturized and certain medications can help temporarily reduce symptoms. Unfortunately, after a flare-up, the affected area often develops hyperpigmentation: when melanocytes move to the site of inflammation, causing the skin to darken due to irritation and scratching [1].

When comparing eczema rates between White and Black individuals, studies show that Black people are more likely to experience the condition. Black families also tend to spend more on out-of-pocket costs related to eczema, especially since it's more common among Black children [2]. There's very limited research focused on why eczema is more prevalent in Black individuals or what treatments are most effective with most studies tailored to White individuals.

Due to the limited amount of research conducted on Black individuals regarding eczema, the aim of this study is to conduct thorough research into the main elements that contribute to increased proneness to eczema in Black skin, and its psychological impacts.

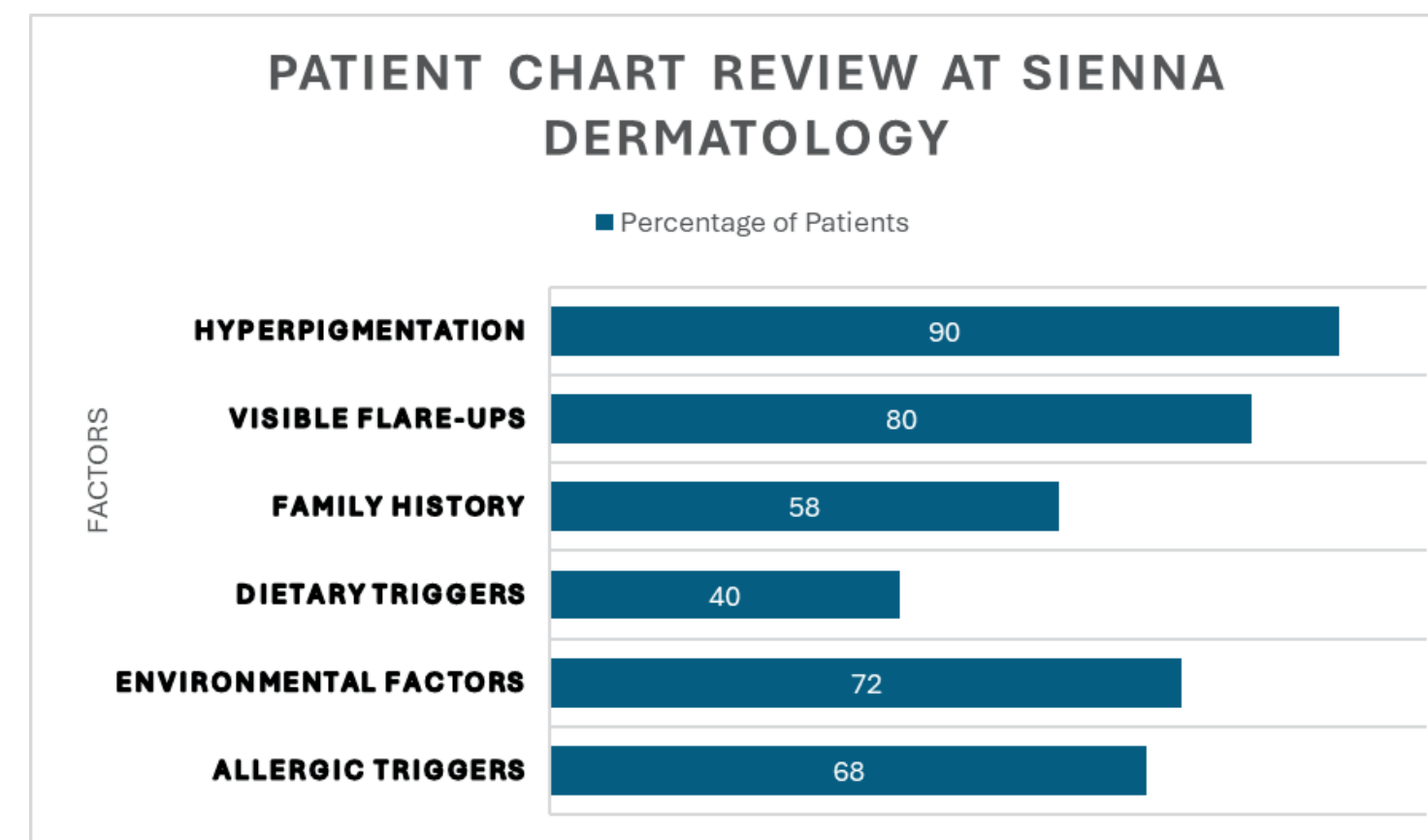


Figure 1



73% of Black individuals feel self-conscious, leading them to wear clothing to cover affected areas, even in hot weather (Figure 2). Furthermore, 67% of participants reported that hyperpigmentation impacted their confidence more than eczema itself. In response to additional comments participants were able to include at the end of the survey, many described feelings of embarrassment, unattractiveness, and frustration. A significant source of this frustration stems from the perception that doctors lack adequate knowledge or research to effectively treat their skin conditions.

REFERENCES

1. Lambert, Alice. "Skin Pigmentation and Eczema." National Eczema Society, 9 Feb. 2021, eczema.org/information-and-advice/living-with-eczema/skin-pigmentation/.
2. Johnson, Jodi L. "The Science of Eczema on Brown and Black Skin." National Eczema Association, 20 Sept. 2022, nationaleczema.org/blog/the-science-of-eczema-on-darker-skin/

RESULTS & FINDINGS

As Figure 1 demonstrates, 68% of patients contained allergic triggers linked to skincare and haircare products. In terms of the environmental triggers, abrupt changes in weather, especially in colder temperatures, caused flare-ups. Dietary triggers included sensitivities to dairy and gluten products. Additionally, more than half [58%] of the patients had a direct relative with either atopic dermatitis or asthma, which is another atopic condition [Figure 1]. Finally, most patients experienced flare-ups in visible areas such as the face, neck, hands, and elbows, and nearly all developed post-inflammatory hyperpigmentation.

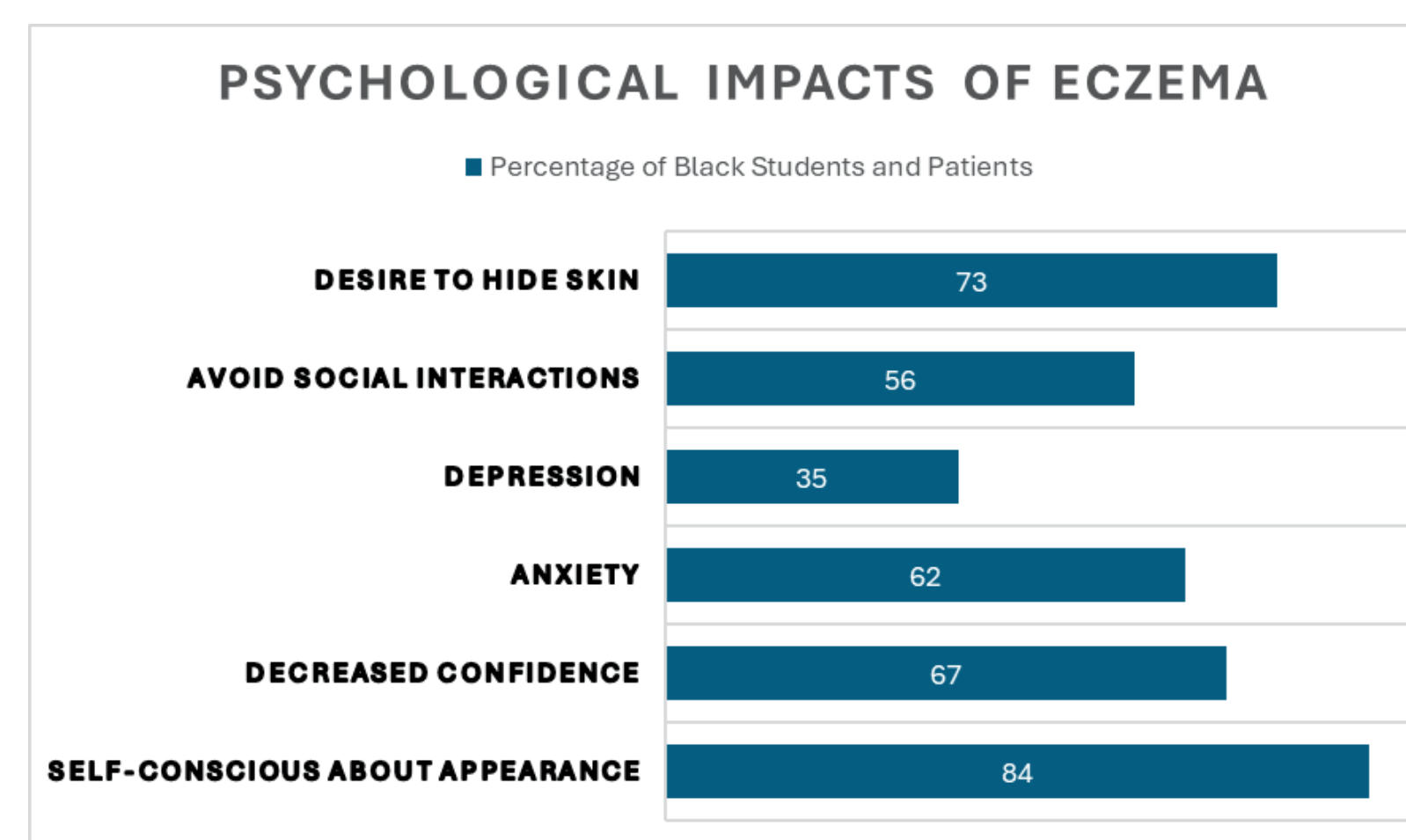


Figure 2

METHODOLOGY

Quantitative data was collected by reviewing 60 patient charts at Sienna Dermatology. These charts were analyzed for patterns related to allergies, environmental triggers, medical history, and other relevant factors to help identify why eczema may be more common in Black individuals.

Qualitative data was gathered through a survey given to Black patients at Sienna Dermatology [QR code] and students at Thurgood Marshall High School [social media]. A total of 45 participants—30 students and 15 patients—completed a brief survey designed to explore the psychological impact of eczema and hyperpigmentation. Some questions asked whether these skin conditions affected what they wear, caused feelings of anxiety or depression, or led them to avoid social events.

DISCUSSION

This research was conducted with limited prior knowledge, mainly because there's a lack of studies that explore the factors contributing to atopic dermatitis in Black individuals. Because of this gap, a wide range of outcomes was expected. Still, the findings from both the patient chart reviews and surveys provided meaningful insight into the ways this condition disproportionately affects Black individuals.

To get more accurate and generalizable results, this methodology should be applied to a larger Black population and across different regions—not just Missouri City. Since weather is a major trigger for eczema flare-ups, it would be helpful to see how people living in different climates are affected.

Despite these limitations, moving forward, it's crucial that dermatological research includes more Black participants so we can better understand the specific causes of atopic dermatitis in this population and improve treatment outcomes. Increasing clinician education, ensuring representation in clinical trials, and adopting culturally sensitive care are all essential steps toward creating equity in dermatological health.