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Chronic Atopic Dermatitis: Symptom Management Using Moisturizers in Asian American Pediatrics

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Introduction

Atopic Dermatitis (AD) affects 31.6 million (10%) of the United States Population, with 13% being Asian American or Pacific Islander. Approximately 9.6 million US children under the age of 18 are affected with atopic dermatitis (National Eczema Association, 2023). It can be present throughout the whole body, but AD is most commonly seen on one's face, arms or behind the knees. Several factors that cause AD include genetics, environment, emotional triggers, and an overactive immune system. Patients with AD will often experience flare ups which are triggered by dry weather, certain clothing materials, makeup or skin care products, smoke, pollutants, certain soaps or detergents, stress, and food allergies (Cleveland Clinic, 2023).

A cure is not present for AD; however, the best way to treat AD is with symptom management. While there are many pharmacological treatments that aid with symptom management such as topical or oral corticosteroids, there are also non pharmacological treatments such as moisturizers that can aid with symptom relief of AD as well. There are three different types of moisturizers: emollients, occlusives, and humectants. (Purnamawati et al., 2017).

There has been limited research on moisturizer use as an intervention for symptom management in the Asian American pediatric population.

Hypothesis

Asian American pediatric patients who use moisturizers over an 8 week period are more likely to show improved symptoms of atopic dermatitis than Asian American pediatric patients that do not use moisturizers.

Method

- **Design:** Quasi-experimental
- **Participants:** convenience sample of 150 (with mild-to-moderate AD, under the age of 18, from Asian American descent, male or female) recruited from hospitals or clinics
- **Independent variable:** Cetaphil Restoraderm Moisturizer (CRM)
- **Dependent variable:** severity of AD
- **Procedure:**
 - 150 participants equally separately into experimental and control group randomly
 - Both groups will receive education on non pharmacological methods to manage AD
 - CRM will be applied twice a day for a period of 8 weeks with follow up appointments at weeks 2, 4, and 8.
- **Measurement and Tools**
 - SCORAD: Scores severity of AD through area measurement, intensity and visual analog scale (VAS) of participants' own subjective score
 - Transepidermal water loss (TEWL): measures water loss and skin integrity of stratum corneum
 - Self filling questionnaire: asks about quality of life (comfort levels, impact on social life, etc.)

Data Analysis

- Descriptive statistics will be used to determine the means of SCORAD, VAS, TEWL between moisturizer and control groups
- Inferential statistics will be used to determine a *p*-value
- If the *p*-value is < 0.05, the results will be statistically significant that the hypothesis is true and therefore reject the null hypothesis that moisturizers do not help with AD.

Conclusion

AD will continue to affect people and the best way to manage flare ups is through symptom management with pharmacological or non pharmacological methods. Since this study is focused on Asian American pediatrics, the nurse is tasked with understanding cultural differences and developing cultural sensitivity in the care they offer to patients. As a result of the study, there is an expectation that SCORAD, VAS, and TEWL scores will decrease. Life with AD will be more manageable with proper education and symptom management techniques. Although this proposal will only focus on Asian American pediatrics, other research can be done in the future with different ethnicities regarding moisturizer use which will close more population group gaps that are present in current literature studies.



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