Investigating the Role of Emotion Dysregulation in Anxiety and Chronic Disease Self-Management among Adults with Skin Disease

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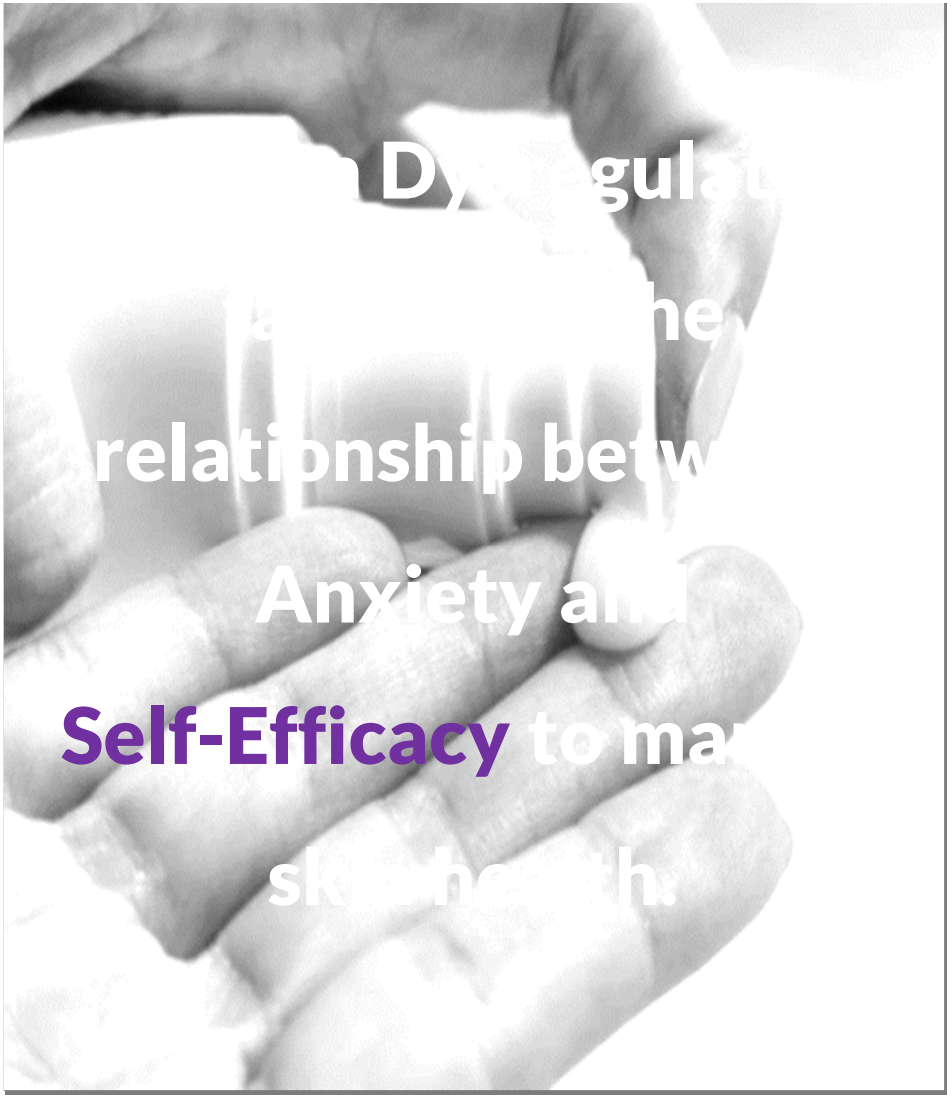
INTRODUCTION

- **Self-efficacy** to manage and prevent chronic medical disease symptoms has been shown to play an important role in functional outcomes (e.g., symptom severity, fatigue) for those with skin disease.
  - Skin disease is associated with both anxiety and emotion dysregulation
- Research shows anxiety and emotion dysregulation are each associated with **self-efficacy** in disease management.
- These connections suggest adults with chronic skin disease may struggle with disease self-management abilities; yet, no research has concurrently investigated anxiety and emotion dysregulation in relation to **self-efficacy** in a skin disease sample.
- Hypothesis:
  - 1: We predicted significant correlations among the study variables.
  - 2: We predicted anxiety would be indirectly associated with **self-efficacy** via emotion dysregulation.

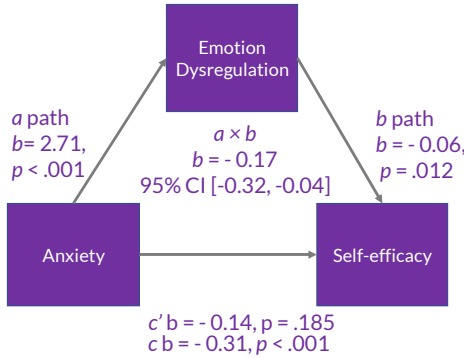
METHODS

1. Adults (N = 155; 64.5% Female) who screened positive for skin disease symptoms were recruited from MTurk and completed online questionnaires.
   - Participants reported: Eczema (39.4 %) and Acne (24.5%), with 80.6% seeing a medical provider for a skin complaint in the last 12 months.
2. The PROCESS macro was used to estimate the indirect effect with 10,000 resamples to evaluate the mediating role of emotion dysregulation in the association between anxiety and **self-efficacy**.



RESULTS

- Significant correlations were found between all variables such that high anxiety symptoms and ER deficits were associated with a decrease in **self-efficacy** (*rs* = -.29 - .63; p < .001)
  - 34.2% of participants endorsed clinical levels of anxiety.
- The full model accounted for 9.09% variance in **self-efficacy.**
- The model indicated a significant indirect effect (B = -0.17, [95% CI: -0.32, -0.04]) from anxiety to **self-efficacy** through emotion dysregulation



DISCUSSION

- Results support associations among anxiety, emotion dysregulation, and **self-efficacy** in a sample of adults with skin disease.
- Findings suggest anxiety contributed to greater emotion dysregulation, which in turn, was associated with less **self-efficacy** for chronic disease management.

IMPLICATIONS

- Results highlight the importance of integrated care and multidisciplinary collaboration to increase screening for anxiety in patients with skin disease.
- Evidence-based treatments (e.g., CBT) emphasizing changes in emotion dysregulation and anxiety may be helpful for improving **self-efficacy** for managing skin disease symptoms.

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Title: Investigating the Role of Emotion Dysregulation in Anxiety and Chronic Disease Self-Management among Adults with Skin Disease

Abstract

Background: The self-efficacy to manage and prevent chronic medical disease symptoms has been shown to play an important role for those with skin disease (Albrecht et al., 2013). Those with skin disease have been shown to be at increased risk of anxiety (Amorim-Gaudêncio et al., 2004; Dixon et al., 2019) and emotion regulation difficulties (Almeida et al., 2017; Cengiz, & Gürel, 2019), and recent studies have shown that increased levels of anxiety importantly affect a person's self-efficacy when it comes to managing medical conditions (Papadopoulou et al., 2017; Wang et al., 2019). Similarly, emotion dysregulation and self-efficacy have been linked (Pocnet et al., 2017; Yu et al., 2014). Taken together, these connections suggest adults with chronic skin disease may struggle with disease self-management abilities; yet, no research has concurrently investigated the connections among these factors in a skin disease sample. Given the importance of self-efficacy in chronic disease, these relations were examined. We hypothesized significant correlations among the study variables and predicted there would be an indirect association of anxiety and self-efficacy via emotion dysregulation.

Methods: Participants were recruited as part of a larger ongoing study examining mental health and skin disease in an online sample (MTurk; data collection will be completed by June of 2020). Preliminary data included 155 participants (M_{age} = 32.32; *SD* = 9.63; 64.5% female) and 63.9 % identified as White, and 16.1% identified as Black/African-American. Participants completed a battery of assessments, including measures of anxiety (Generalized Anxiety Disorder – 7; Spitzer et al., 2006), emotion dysregulation (Difficulties in Emotion Regulation Scale; Gratz & Roemer, 2004), and self-efficacy (Self-Efficacy for Managing Chronic Disease; Lorig et al., 2001). Analyses were conducted using the PROCESS macro to test a mediation model examining relationship between anxiety and self-efficacy through emotion dysregulation (Hayes, 2018).

Results: In this sample, 34.2% endorsed clinical levels of anxiety. Bivariate correlations yielded significant associations with small to large effects between the study variables (r = -.29 - .62; p < .001). Mediation analyses revealed the total model accounted for 9.09% of the variance in disease self-efficacy. Supporting the hypothesis, the indirect effect was significant (B = -0.17, [95% CI: -0.32, -0.04]). Specifically, anxiety contributed to increased emotion dysregulation, which in turn, was associated with low levels of self-efficacy.

Discussion: This study provides initial support for the associations among anxiety, emotion dysregulation and self-efficacy in a sample of adults with skin disease. Results indicate importance of increasing integrated care and multidisciplinary collaboration to increase anxiety screening for patients with skin disease. It also highlights the potential benefit of evidenced-based treatments (e.g., CBT; Turner et al., 2016) that address anxiety and emotion dysregulation to increase self-efficacy in managing skin disease.

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Measures

Generalized Anxiety Disorder – 7

Difficulties in Emotion Regulation Scale

Self-Efficacy for Managing Chronic Disease