

Anxiety and depression in pediatric migraine: Systematic review and meta-analysis with consideration of gender diversity

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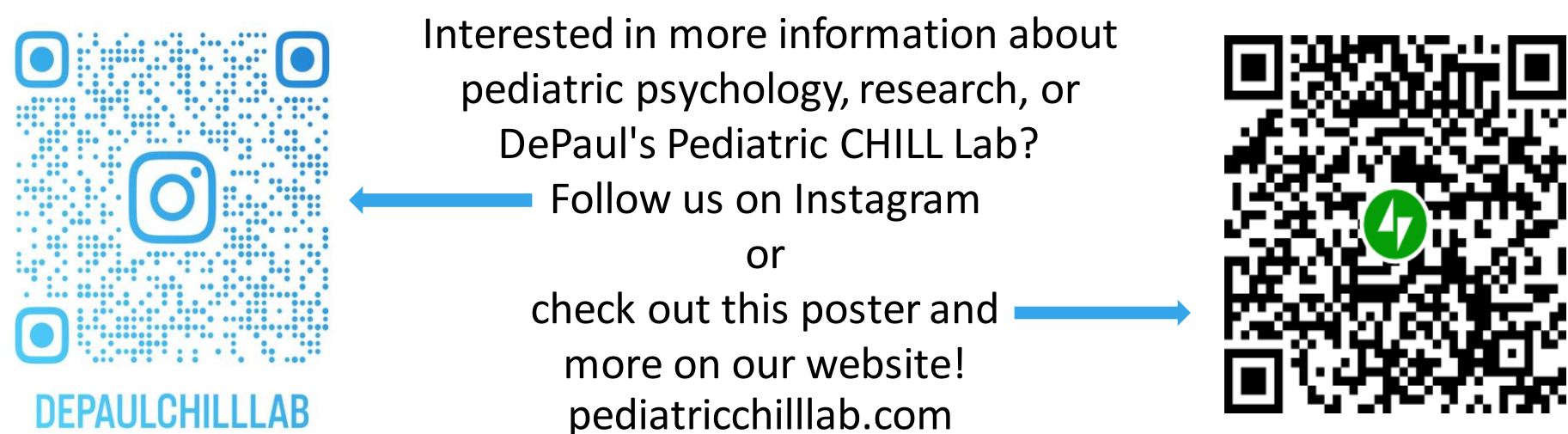


INTRO

- Pain that persists for 3+ months is chronic.
- 20-40% of children globally experience chronic pain, including migraine.
- Migraine is the 2nd largest cause of disability worldwide.
- Psychological distress is related to pediatric migraine.
 - Unknown how common mental health conditions are in this population.
- Gender is related to pediatric chronic pain experiences.
 - Unknown which gender identities are included in pediatric migraine research.
 - Nor is it known how gender diversity is represented in this research.

AIMS AND HYPOTHESES

- **Aim 1.** Estimate co-occurrence of anxiety and/or depression in pediatric migraine.
- **Hypothesis 1.** Youth with pediatric migraine will experience anxiety and depression more frequently than youth without (Anxiety occurs in 5 to 17% of and depression occurs in 3 to 30% of general youth samples).
- **Aim 2.** Explore how studies are or are not reporting gender diversity.
- **Hypothesis 2.** Most studies will not include inclusive questions regarding gender, nor will they report on the inclusion of transgender and/or nonbinary individuals.



Questions? Contact Keely Bieniak at kbieniak@depaul.edu

Fall 2021

-Winter 2022

Winter 2022

-Spring 2022

July 2022

August 2022

September 2022

-March 2024

September 2023

September 2023

-Present

Future

•Preliminary literature review

•Methods development

•Database searches ($n=4,385$)
•Remove duplicates ($n=404$), non-articles ($n=32$), and articles in foreign languages ($n=2$)

•Pilot screening ($n=27$)

•Screened + double screened titles and abstracts ($n=3,948$)

•Finalize Qualtrics for full text screening and data extraction

•Screen full text ($n=387$)
•Extract data in eligible articles ($n=??$)

•Assess study quality using STROBE criteria
•Summarize studies
•Pool, analyze, and interpret data
•End goal: Disseminate findings!

PRELIMINARY FINDINGS

- 9 of 267 full text articles have met criteria and assess anxiety and/or depression in pediatric migraine.
 - We estimate this will increase to 20 articles upon completion of full text screening.
- Across preliminary articles, 7 report on sex and 2 gender.
 - Sex was reported on a binary of male or female in 6 articles.
 - 1 article just reported female for sex.
 - Binary sex terms (male/female) were utilized to describe gender identity in the two articles that stated they assessed gender.
- Anxiety.
 - 6 of 9 articles reported the frequency of participants at or above clinical cutoffs for anxiety.
 - Between 21.7-62% of participants met clinical cutoffs for anxiety.
- Depression.
 - 5 of 9 articles reported the frequency of participants at or above clinical cutoffs for depression.
 - Between 2-45% of participants met clinical cutoffs for depression.

CLINICAL IMPLICATIONS

- More gender descriptors need to be utilized in pediatric migraine research.
- Anxiety levels are high among those with pediatric migraine, more research needs to be conducted to understand this relationship.

Thank you to the Doctoral-Undergraduate Opportunities for Scholarship (DUOS) and Ziegler-Orloff Award program for their support in this project.