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## Virtual Meditation as a Response to Adverse Childhood Events PP009

Study Coordinator: Lizeth Gasca



## Project Overview

**Goal:** Identify the benefits of virtual meditation sessions for pediatric adolescents with a history of adverse childhood experiences (ACEs)

**Background:** Meditation and mindfulness practices have proven to be beneficial in adults with mental health disorders and with PTSD. Little data exists to show if these practices can also benefit adolescents with symptoms or deficits related to ACEs.

Study Design: Pre-Post intervention study

**Participants:** Recruited from SHARK and LA County DHS ACEs-LA participating clinics



## **Project Methods**

**Intervention:** Series of weekly meditation sessions over 6 weeks, 1 hour each, delivered via ZOOM

#### Data Tracked:

- Physical symptoms
- Mental health symptoms
- Relationships with family and peers

#### Data Instruments:

- PHQ-9
- GAD-7
- SDQ
- BIS

**Data Collection Timepoints:** enrollment, 1 month post study intervention, 4 months post study intervention

# Inclusion Criteria: Age 11-20 + ACEs Screening (Score 4+ OR 1-3 with symptoms) Computer or smart phone with camera and audio capability Patient and guardian speak English or Spanish fluently

#### **Exclusion Criteria:**

Significant impairment in cognition
New psychiatric medication or change in dose of psychiatric medication 90 days prior to enrollment
New mental health therapy started 90 days prior to enrollment

## Helane Anderson

Sound Mindfulness Mediation

CLASS 1 - SOUND HEALING & MINDFULNESS WITH POSITIVE AFFIRMATIONS (MANTRAS)

CLASS 2 - SOUND HEALING WITH DRUMS, MINDFULNESS AND MOVEMENT

CLASS 3 - MINDFULNESS AND THE VOICE - MOVING ENERGY THROUGH SINGING AND SOUND



### Valerie Cusson Breathing Mindfulness Meditation

CLASS 1 - INTRO TO MINDFULNESS: MIND POWER

CLASS 2 - MINDFULNESS OF THE BREATH

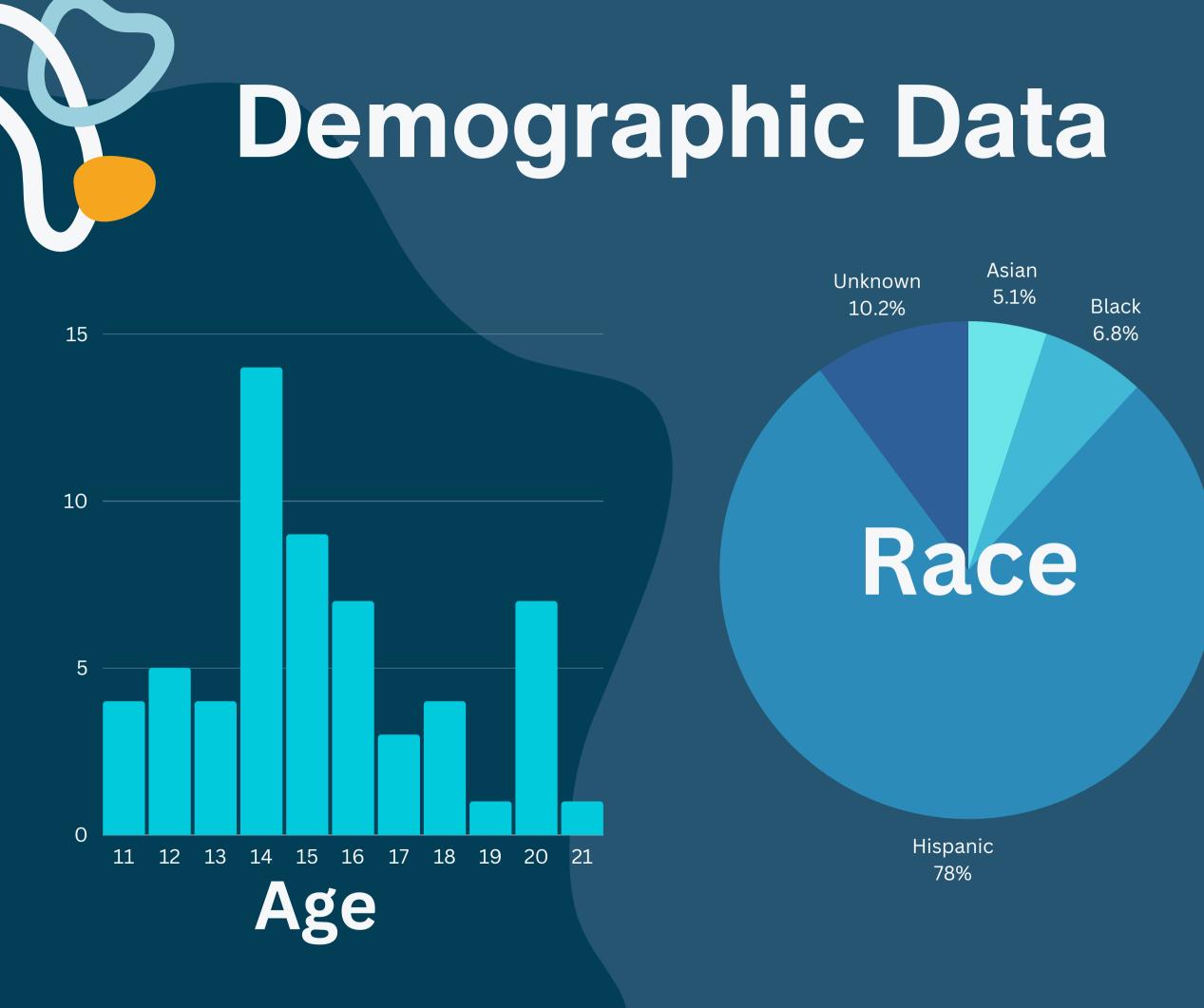
CLASS 3 - DEVELOPING HEARTFULNESS





59 Enrolled Participants

4 Dropped Out



English/Spanish Spanish <sup>5.1%</sup>

5.1%

### Patient Language

English 89.8%

English/Spanish 1.8%

Spanish 25%

#### Parent Language

English 73.2%

## Demographic Data

Trans

1.7%

Gender

Male 49.2%

Female 50.8%

Sex

Male 47.5%

### Sexual Orientation

Queer Bisexual

5.1%

1.7%

Pansexual

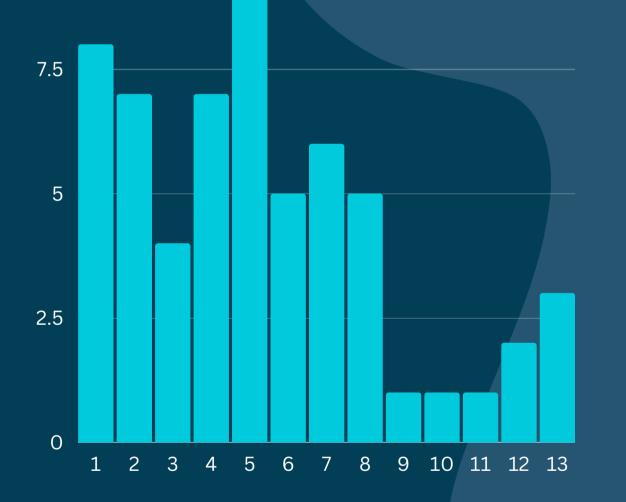
5.1%

Lesbian 3.4%

Female 50.8%

Heterosexual 84.7%

## Demographic Data



10

52.5%

Yes

#### **Prior Experience** with Meditation?

#### **ACES Score**

Yes 33.9%

No 47.5%

#### **Prior Experience** with Yoga?

No 66.1%

### **Demographic Data**

No 20.3%

### One Month Follow Up Completed

Yes 79.7% 1

25

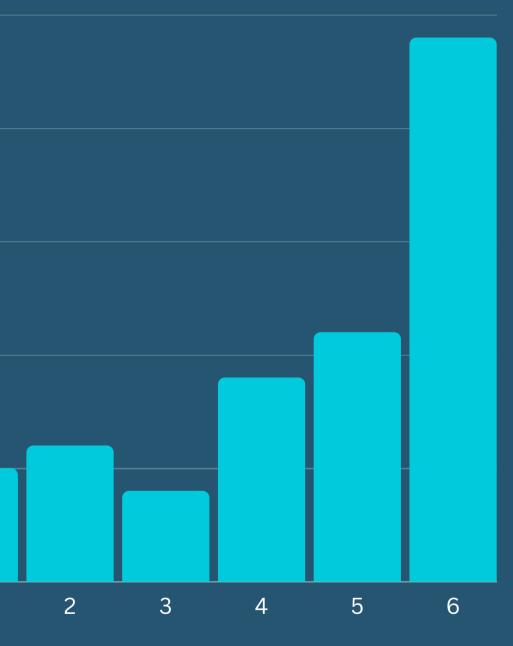
20

15

10

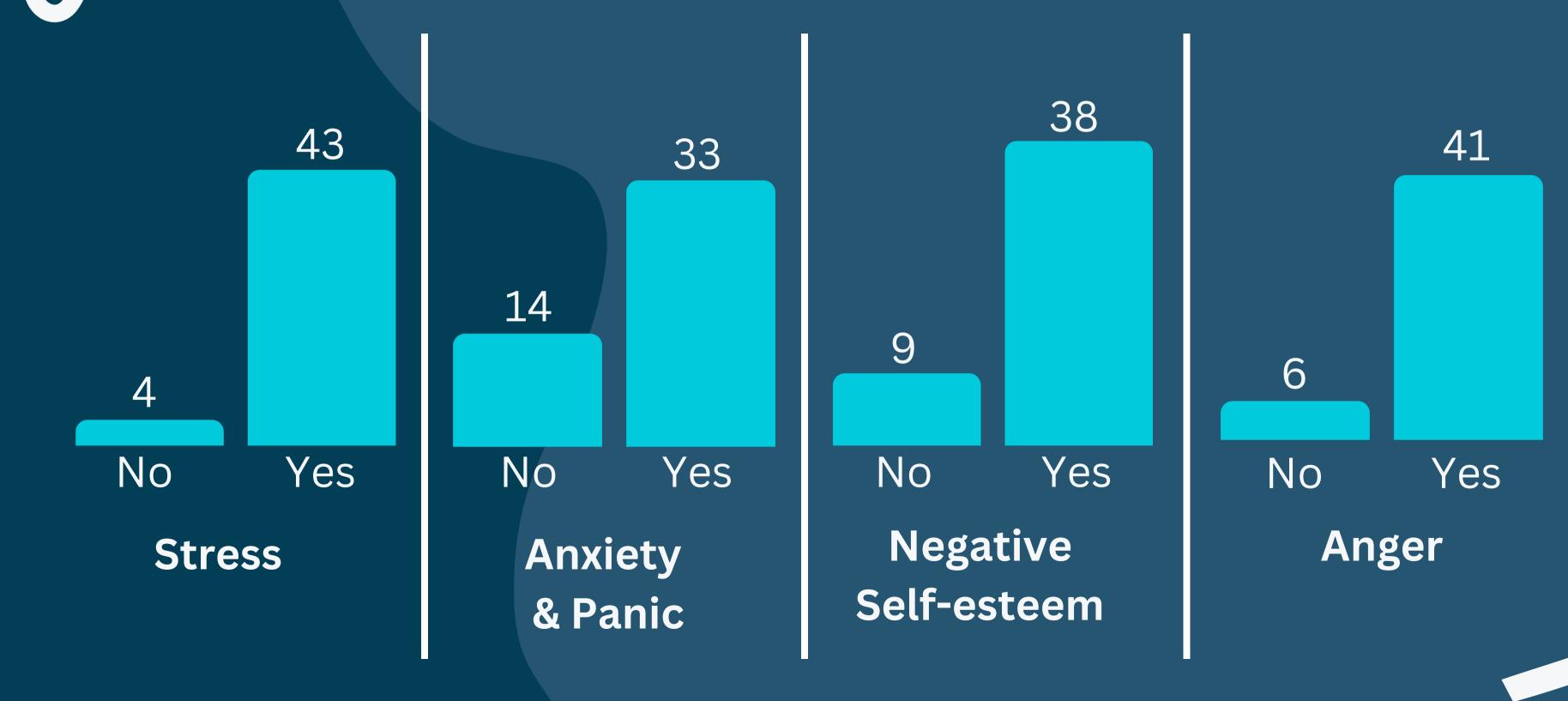
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0



#### Total Sessions Attended

## Indication of the helpfulness of mindfulness and meditation at the one month follow-up (N=47):



## **Changes in Knowledge and Attitudes**

Table 3. Changes over time in knowledge and attitudes about mindfulness and meditation at the one month follow-up

	Number and Percentage Responding 'Yes'				
	Pre		One Month Follow-Up		
	Ν	%	Ν	%	P Value <sup>*</sup>
Do you know what mindfulness/meditation means?	19	40	30	64	0.0127
Do you think meditation and mindfulness practices could help in your life?	35	74	45	96	0.0020
Have you practiced being mindful or meditating on your own in the past two weeks?	6	13	32	38	< 0.0001

Exact McNemar test comparing changes from Pre to One Month Follow-Up

## **Changes in Physical Symptoms**

Table 4. Changes over time in past month physical symptoms at the one month follow-up

(N = 47)	Number and Percentage Responding 'Yes'					
	Pre		One Mont	p		
	Ν	%	Ν	%	P Value <sup>*</sup>	
Headache/Migraine	17	36	11	23	0.1094	
Chronic Abdominal Pain	15	32	12	26	0.5811	
Chronic Muscle or Bone Pain	11	23	8	17	0.6072	
Chronic Nausea or Vomiting	11	23	8	17	0.5078	
Difficulty Eating	12	26	11	23	1.0000	
Difficulty Sleeping	26	55	19	40	0.1435	
Frequent Dizziness	9	19	7	15	0.7266	
Frequent Constipation/Diarrhea	7	15	4	9	0.3750	
Chronic Fatigue	20	43	15	32	0.3018	
Palpitations/Heart Racing	8	17	5	11	0.4531	
Unexplained Shortness of Breath	9	19	5	11	0.4240	
	Ν	Mean	Med	SD		
Change in Total Number of Symptoms	47	-0.851	-1.000	2.236	0.0082	

<sup>\*</sup>Exact McNemar test comparing changes from Pre to One Month Follow-Up **Bold** indicates statistical significance (p < 0.05) Summary: Significant decrease in total number of symptoms from pre- to onemonth post-intervention. Mean number of symptoms at pre = 3.09 (SD = 2.31) and mean number of symptoms at one-month = 2.23 (SD = 2.42).

## **Changes in Behavioral Health**

Mean Depression Symptoms (PHQ-9) Mean PHQ-9 Total Scores (Lines Indicate 95% Confidence Limits on the Mean) 9.5 7.6 Improvement 5.7 3.8 p < 0.001 1 0 5.13 8.87 0.0 Pre 1-Month Follow-Up SHARK: October 2022 - July 2023 N = 47 Participating Youth Wilcoxon Signed-Rank Test ≥ 10 Indicates Clinically Meaningful Depression Risk

**Summary:** Significant improvements from pre-intervention to one-month post-intervention in PHQ-9 Total Score and GAD-7 Total Score.

10.2

8.5

6.8

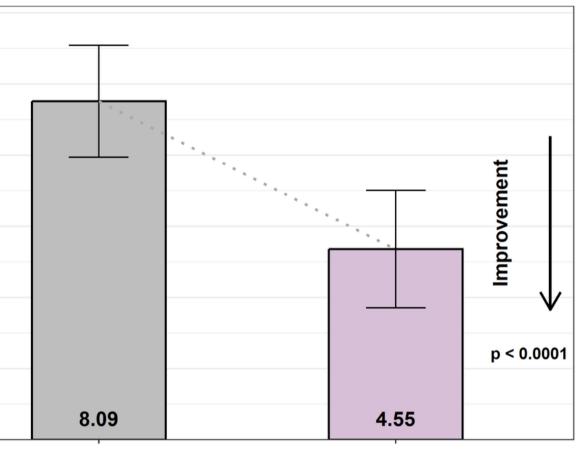
5.1

3.4

17

0.0

Mean GAD-7 Total Scores (Lines Indicate 95% Confidence Limits on the Mean) Mean Anxiety Symptoms (GAD-7)

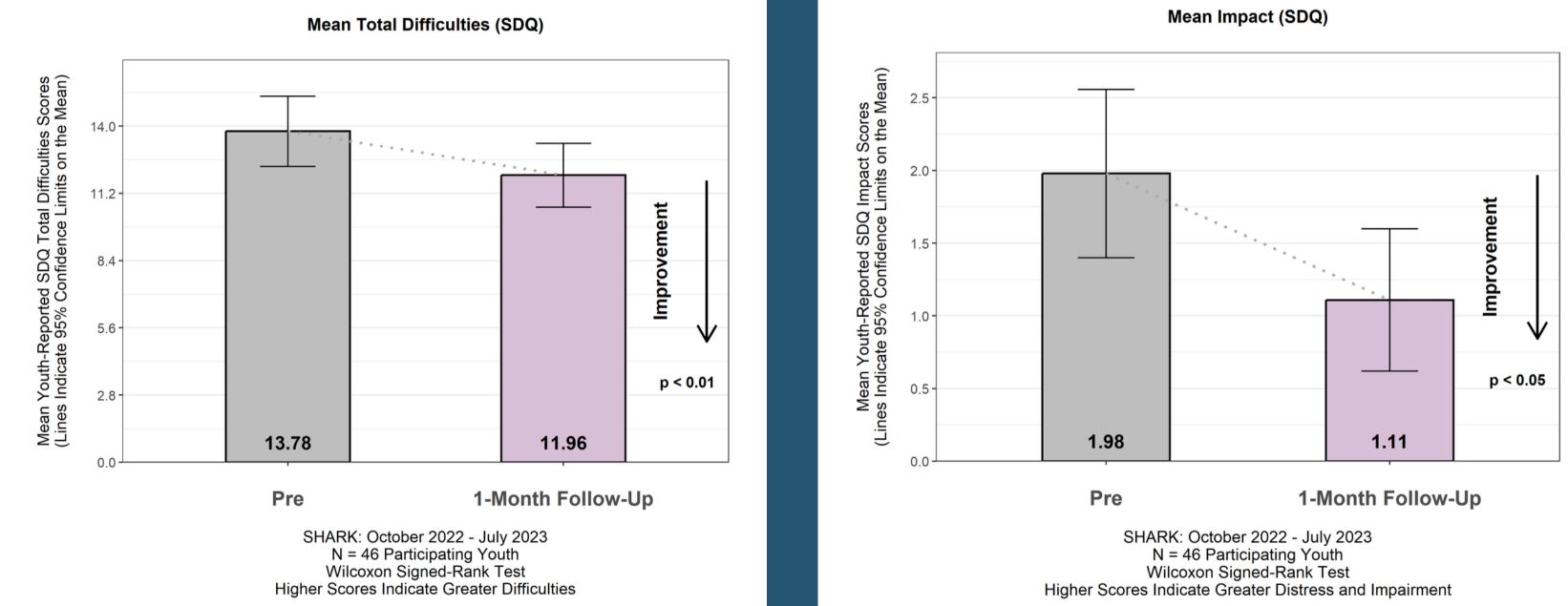


Pre

1-Month Follow-Up

SHARK: October 2022 - July 2023 N = 47 Participating Youth Wilcoxon Signed-Rank Test ≥ 10 Indicates Clinically Meaningful Anxiety Risk

## **Changes in Behavioral Health**



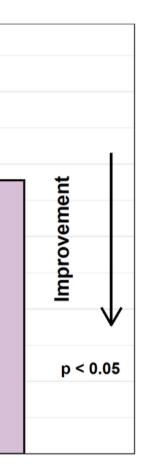
**Summary:** Significant improvements from pre-intervention to one-month post-intervention in SDQ Emotional Symptoms (Parent and Patient Report), SDQ Peer Problems (Parent Report), SDQ Total Score (Patient-Report) and SDQ Impact (Patient-Report).

## **Changes in Behavioral Health**

Mean Total Score (BIS) Mean Parent-Reported BIS Total Scores (Lines Indicate 95% Confidence Limits on the Mean) 21.5 17.2 12.9 8.6 4.3 19.13 16.24 0.0 Pre **1-Month Follow-Up** SHARK: October 2022 - July 2023

N = 41 Parents Reporting on Participating Youth Wilcoxon Signed-Rank Test Higher Scores Indicate Worse Youth Functioning

**Summary:** Significant improvements from pre-intervention to one-month post-intervention in BIS Total Score and BIS School/Work.



### **Changes in Behavioral Health Correlated** with Number of Sessions Attended

Table 6. Correlation between change over time in behavioral health symptoms at the one month follow-up and number of sessions attended

	Negative correlation suggests that greater reductions from Pre to One-Month are associated with more sessions attended				
	N	Correlation	P Value*		
PHQ-9 Total Score	47	-0.042	0.7772		
GAD-7 Total Score	47	-0.360	0.0129		
Parent-Reported SDQ SDQ Total Score	42	0.015	0.9253		
Patient-Reported SDQ SDQ Total Score	46	-0.086	0.5680		
BIS Total Score	41	0.131	0.4141		
BIS Interpersonal	41	0.075	0.6429		
Total Number of Symptoms	47	0.014	0.9259		

**Summary:** significantly greater reductions in GAD-7 total score were positively correlated with number of sessions attended. Attendance at more sessions corresponded to greater improvements in anxiety.

## Mindfulness Meditation Handout

#### Mindfulness Meditation

#### Why is meditation important?

Meditation has been shown to offer many benefits. It is a well known technique to reduce stress and anxiety. Research also shows that it may also help enhance your mood, promote healthy sleep patterns, and boost cognitive skills.

#### How do you meditate?

- 1. Set a time limit (5mins., 10mins, etc.)
- Find a quite space
- 3. Find a comfortable position (sitting up straight or laying down) and relax



- 4. Close your eyes 5. Focus on you breath
- (Breath from your belly)
- 6. Notice any thoughts that come up and let them pass to return to your breathing

Be more concerned with making this a habit than making each session perfect

> **Mindfulness Meditation** Resources

For guided meditations, meditation soundtracks, and other meditation resources visit www.aces-la.org/shark or scan the QR code



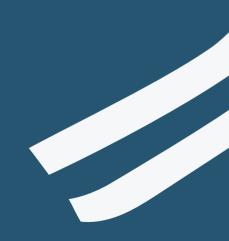












## Mindfulness Meditation Webpage!

For more mindfulness meditation information, resources and our handout please visit <u>www.aces-la.org/meditationprogram</u>







# thanks you

## Questions?

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