

# A Holistic Approach to Multidisciplinary Management of Atopic Dermatitis in Pediatric Patients: Lessons from an Academic Medical Center



**National Jewish  
Health®**

**Breathing Science is Life.®**

**Final Outcomes Summary  
Live & Online Enduring Program  
(6/29/2020-6/29/2021)  
Grant ID 57245027**

# A Holistic Approach to Multidisciplinary Management of Atopic Dermatitis in Pediatric Patients: Lessons from an Academic Medical Center

[Final Outcomes Summary: Live + Online ]

## Program Overview

This educational curriculum was created to improve the clinical skills of allergists and dermatologists by using a holistic approach to managing Atopic Dermatitis (AD) in pediatric patients with a focus on multidisciplinary care, and a stepwise approach to treatment selection. By assessing the National Jewish Health (NJH) Pediatric Atopic Dermatitis Day Program (NJH AD Day Program), the aim was to take what is sustainable and replicable in the NJH multidisciplinary approach and share with providers for adoption within their clinical settings.

## Learning Objectives

1. Distinguish clinical features of Atopic Dermatitis.
2. Summarize research on the safety, efficacy, and mechanisms of action of current and emerging therapies for the treatment of atopic dermatitis in pediatric patients.
3. Select treatments for pediatric patients with Atopic Dermatitis utilizing a stepwise approach.
4. Develop strategies for a holistic, multidisciplinary approach to the management of atopic dermatitis in pediatric patients.

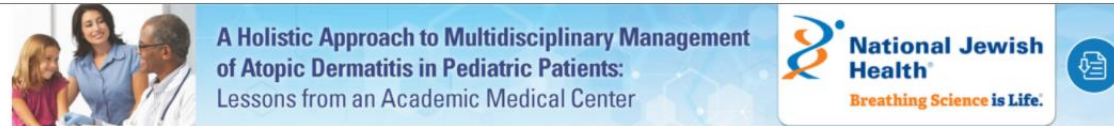
# Online Enduring Activity: FreeCME

[Final Outcomes Summary: Online]

Launched June 29, 2020

<https://learning.freecme.com/a/35019PAwrhc>

A Holistic Approach to Multidisciplinary Management of Atopic Dermatitis in Pediatric Patients: Lessons from an Academic Medical Center



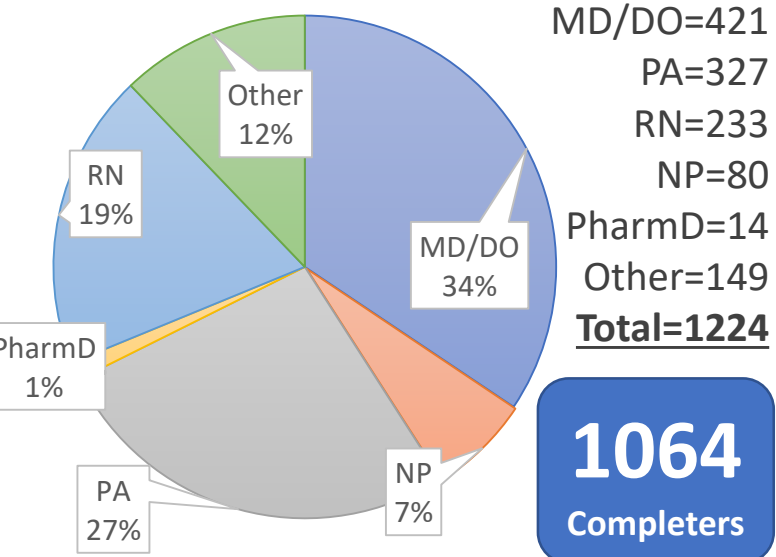
After you've completed viewing the content, you may **Continue** the activity with the button below.

Continue Activity

# A Holistic Approach to Multidisciplinary Management of Atopic Dermatitis in Pediatric Patients: Lessons from an Academic Medical Center

[Final Outcomes Summary: Online]

## Participation

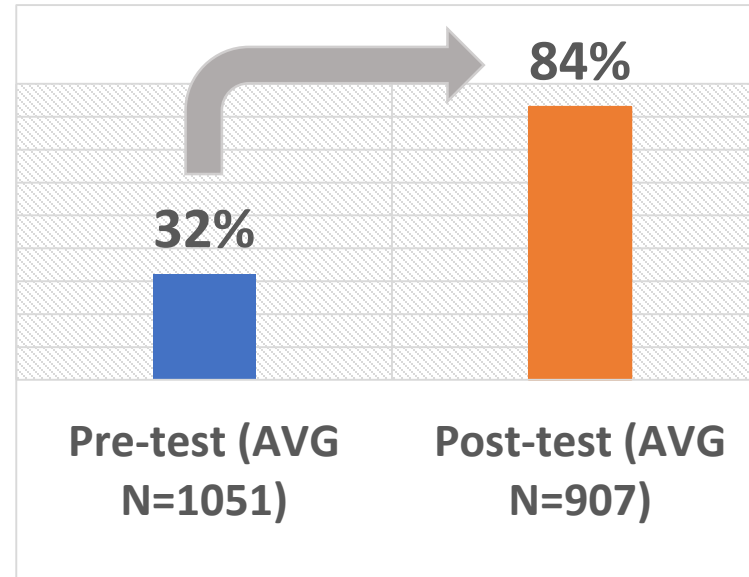


**Online Participation:**  
**1224 Learners**

**68%** of  
Completers are  
MDs/DOs, NPs,  
or PAs

Potential  
Impact to  
**259,844**  
patient visits  
this year

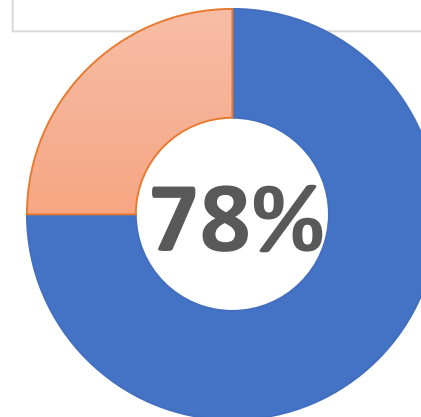
## Overall Knowledge Gain



**163%** Relative Knowledge  
Gain  
**52%** Absolute Knowledge  
Gain

## Top 3 Practice Changes

- 93%** (N=972) reported they intend to make changes to their practice
- ✓ Improve diagnosis & step-wise approach to treatment
  - ✓ Proper medication use and alternative therapies
  - ✓ Use of behavioral intervention for coping strategies



Stated activity  
addressed strategies  
to overcome barriers

*"Thank you  
for this  
program  
offering."*  
- Online  
enduring  
program  
attendee

# Qualitative Educational Impact Summary

[Final Outcomes Summary: Online]

## Participation

**1224**

Total Learners

Who see

**4,997**

Pediatric AD  
Patients Weekly

Which translates to

**259,844**

Potential patient  
Visits Annually

## Educational Impact

**102%** relative knowledge gain seen from learners regarding distinguishing clinical features of atopic dermatitis. [N=1064]

**218%** relative knowledge gain seen from learners with regard to summarizing research on the safety, efficacy, and mechanisms of action of current and emerging therapies for treatment. [N=1064]

**80%** relative knowledge gain seen from learners in selecting treatments for pediatric patients with atopic dermatitis utilizing a stepwise approach. [N=1064]

**650%** relative knowledge gain seen from learners in developing strategies for a holistic, multidisciplinary approach to the management of atopic dermatitis in pediatric patients. [N=1064]

## Practice Change

**93%** of evaluation respondents reported they intended to make changes to their practice as a result of the educational activity [N=972]

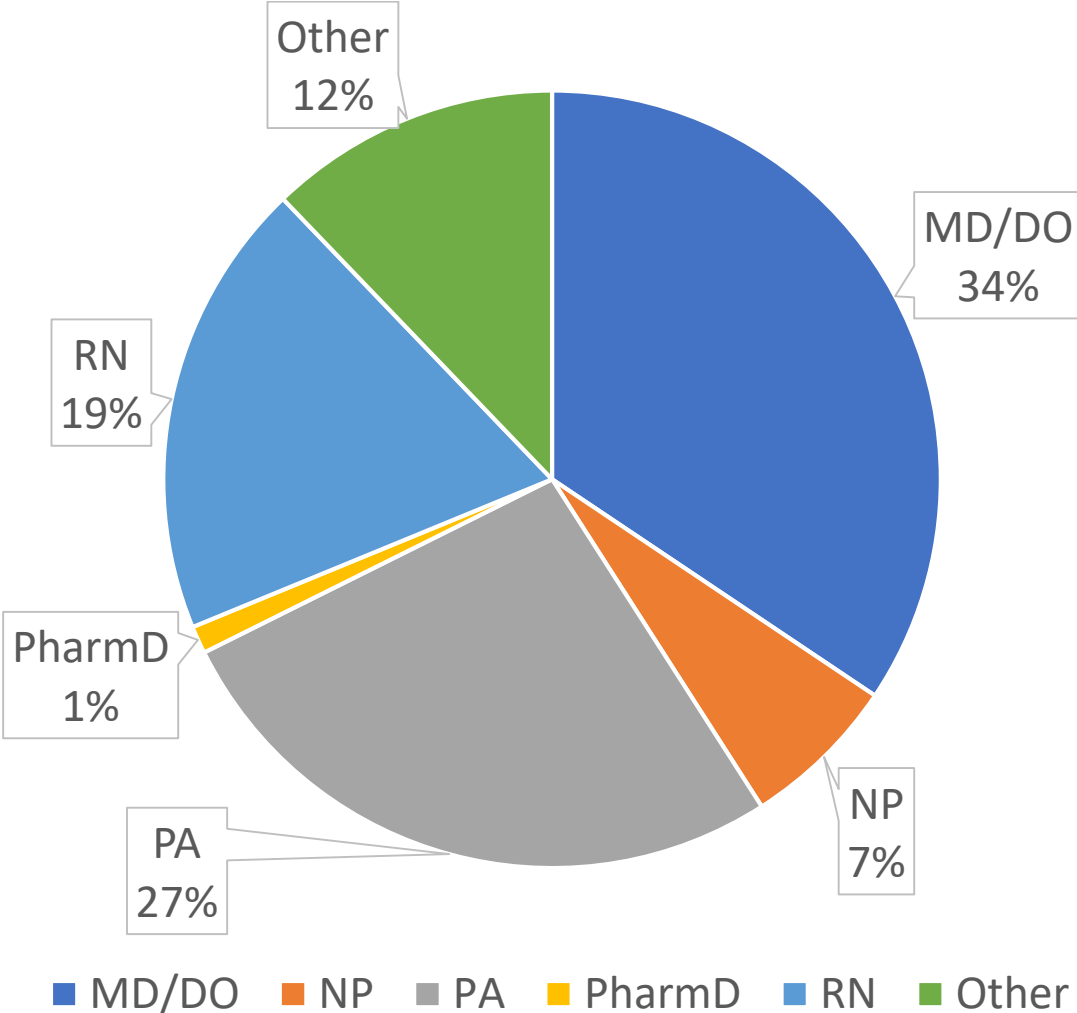
**78%** of evaluation respondents indicated the activity addressed strategies for overcoming barriers to optimal patient care [N=972]

*“Thank you, it did review the newer medical interventions which I had not been able to do.”*

**- Online enduring program attendee**

# Level 1 Outcomes: Participation by Degree

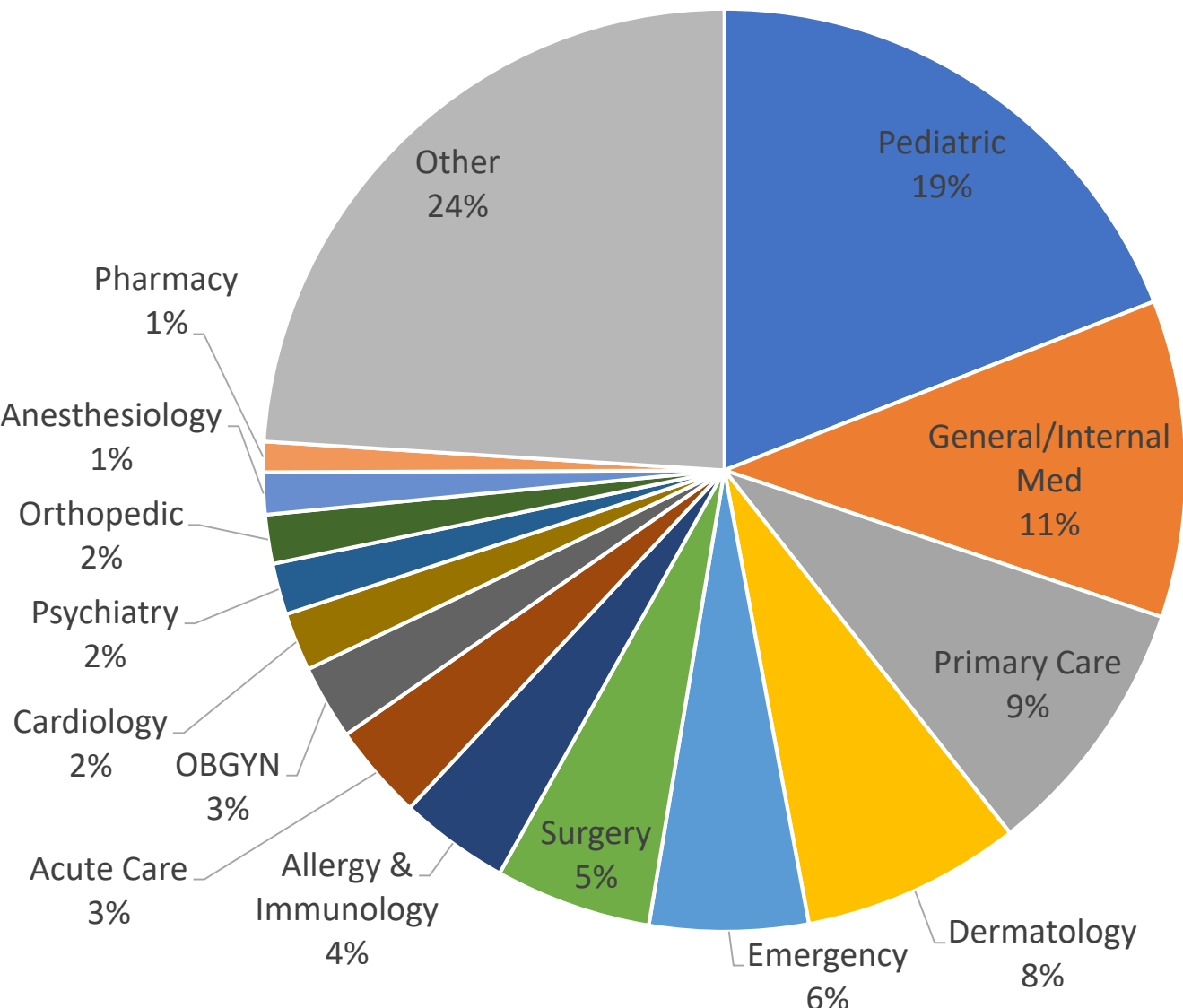
[Final Outcomes Summary: Online]



Degree	Total
MD/DO	421
PA	327
RN	233
NP	80
PharmD	14
Other	149
	<b>1224</b>

# Level 1 Outcomes: Participation by Specialty

[Final Outcomes Summary: Online]

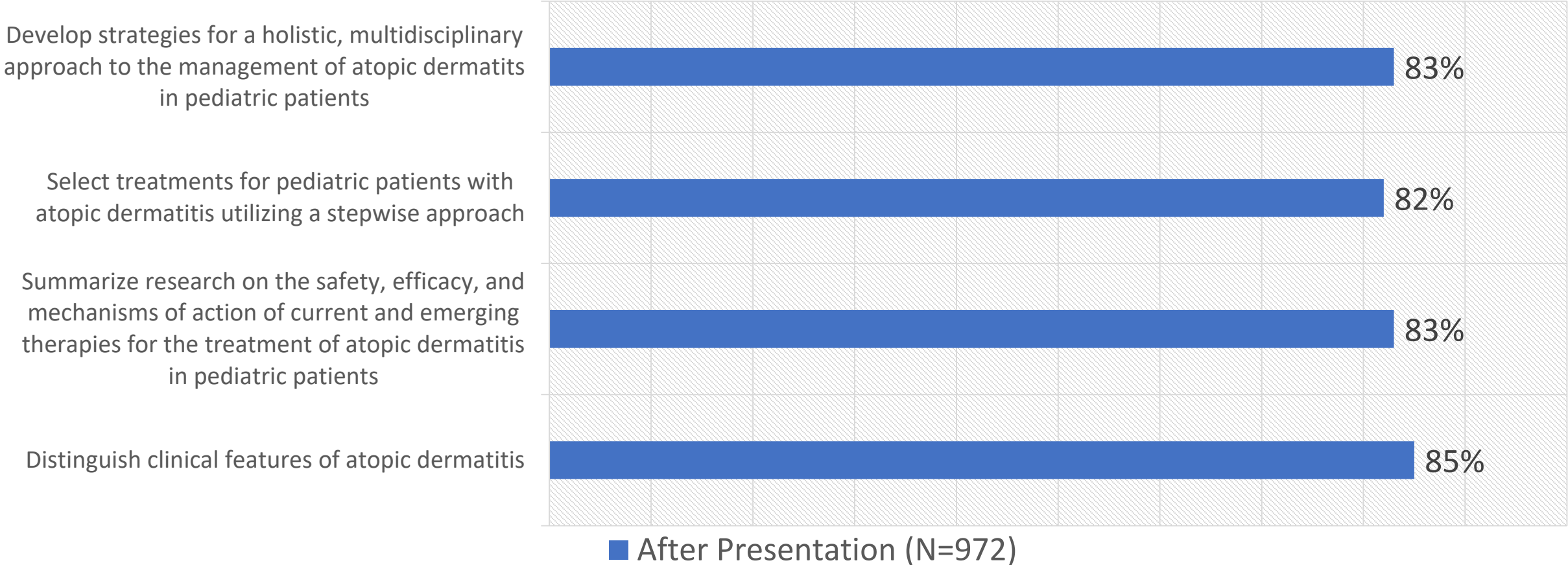


Degree	Total
Pediatric	233
General/Internal Med	136
Primary Care	113
Dermatology	94
Emergency	68
Surgery	67
Allergy & Immunology	47
Acute Care	41
OBGYN	32
Cardiology	25
Psychiatry	22
Orthopedic	21
Anesthesiology	18
Pharmacy	13
Other	294
<b>TOTAL</b>	<b>1224</b>

# Level 2&3 Outcomes: Learning & Satisfaction

[Final Outcomes Summary: Online]

Learners reported their confidence on the learning objectives after the presentation (somewhat confident – very confident)



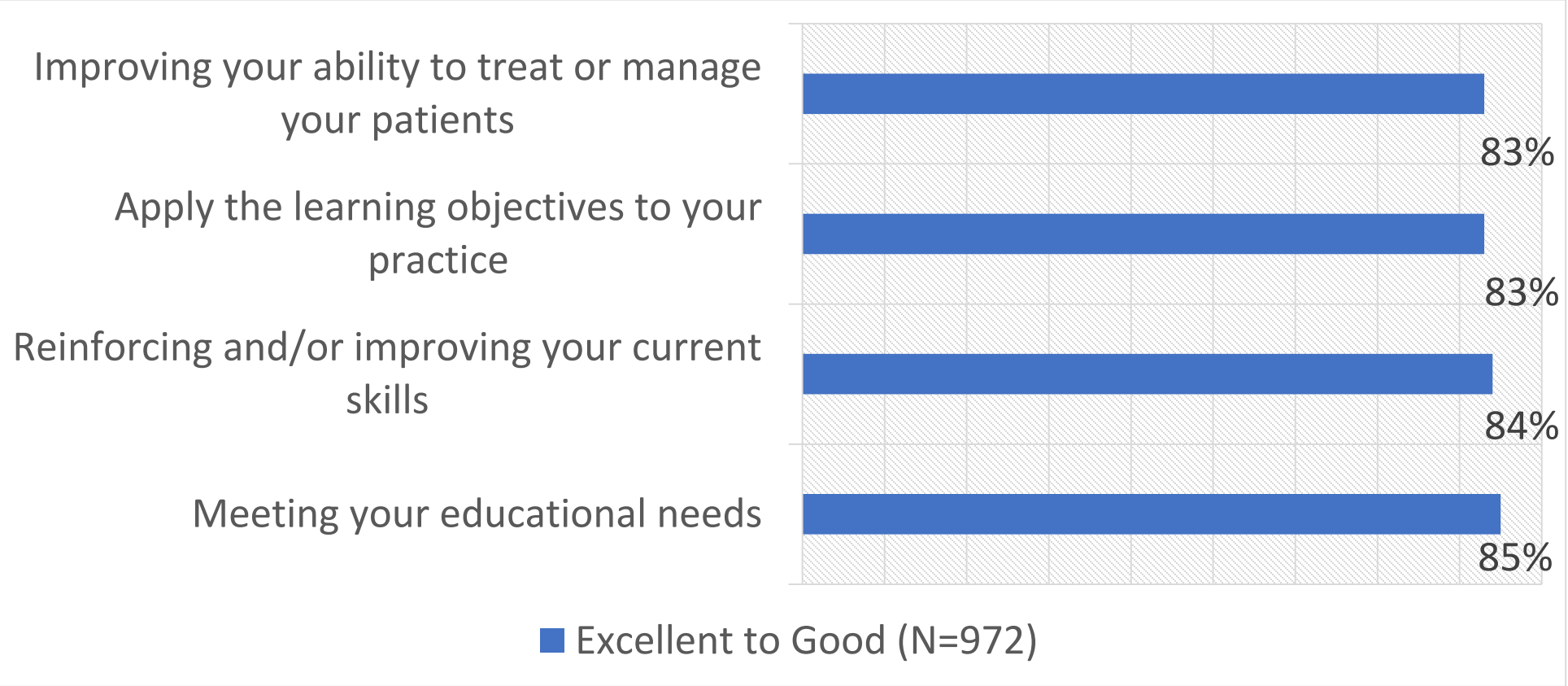


# Level 2&3 Outcomes: Learning & Satisfaction

[Final Outcomes Summary: Online]

## *Analysis of participant responses related to educational needs*

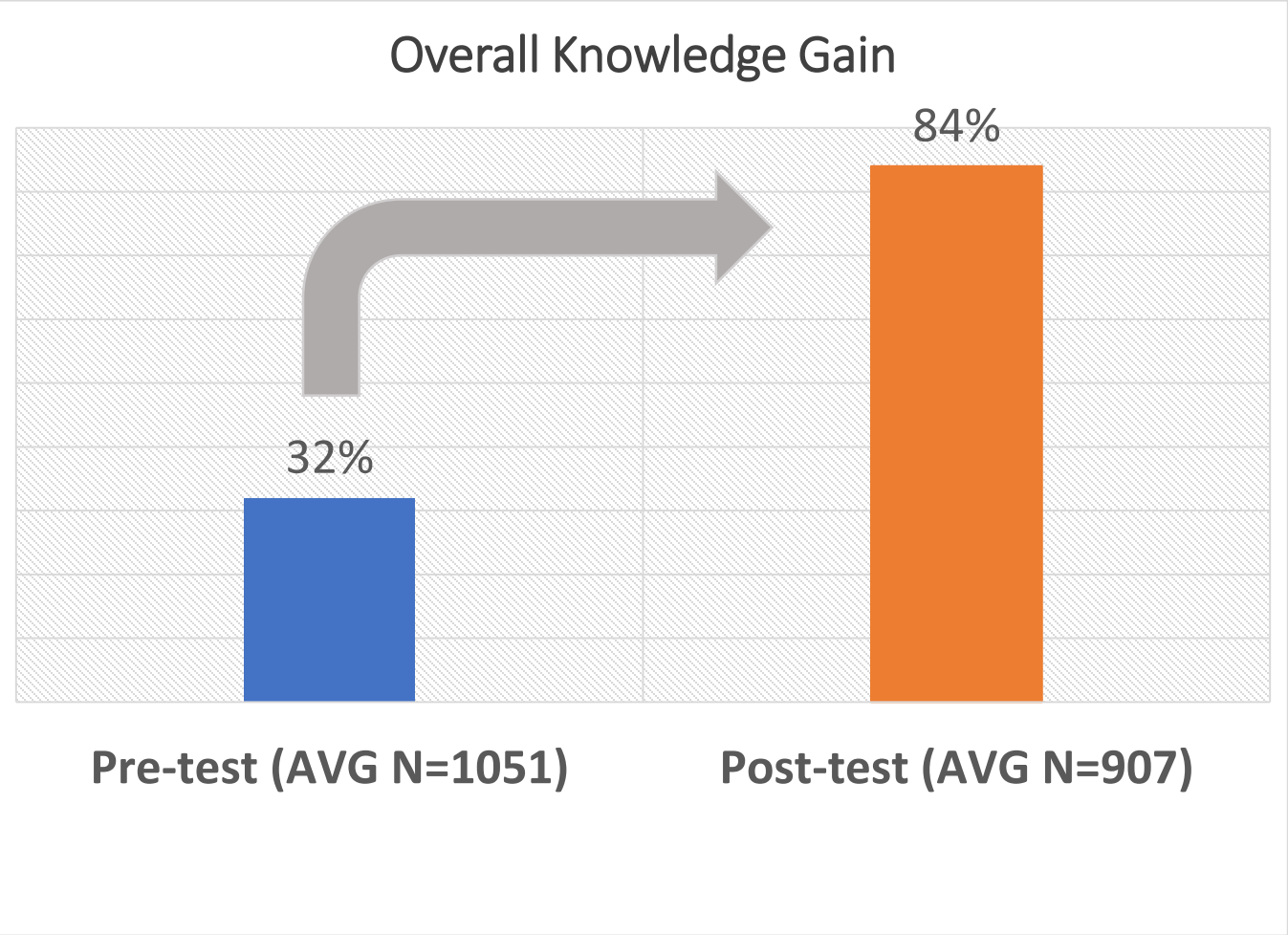
**Participants reported the activity was “Excellent” to “Good” at:**




Learners reported high levels of satisfaction related to the ability of the activity to impact practical applications

# Level 3 Outcomes: Overall Knowledge Gain

[Final Outcomes Summary: Online]



**163%** Relative Knowledge Gain

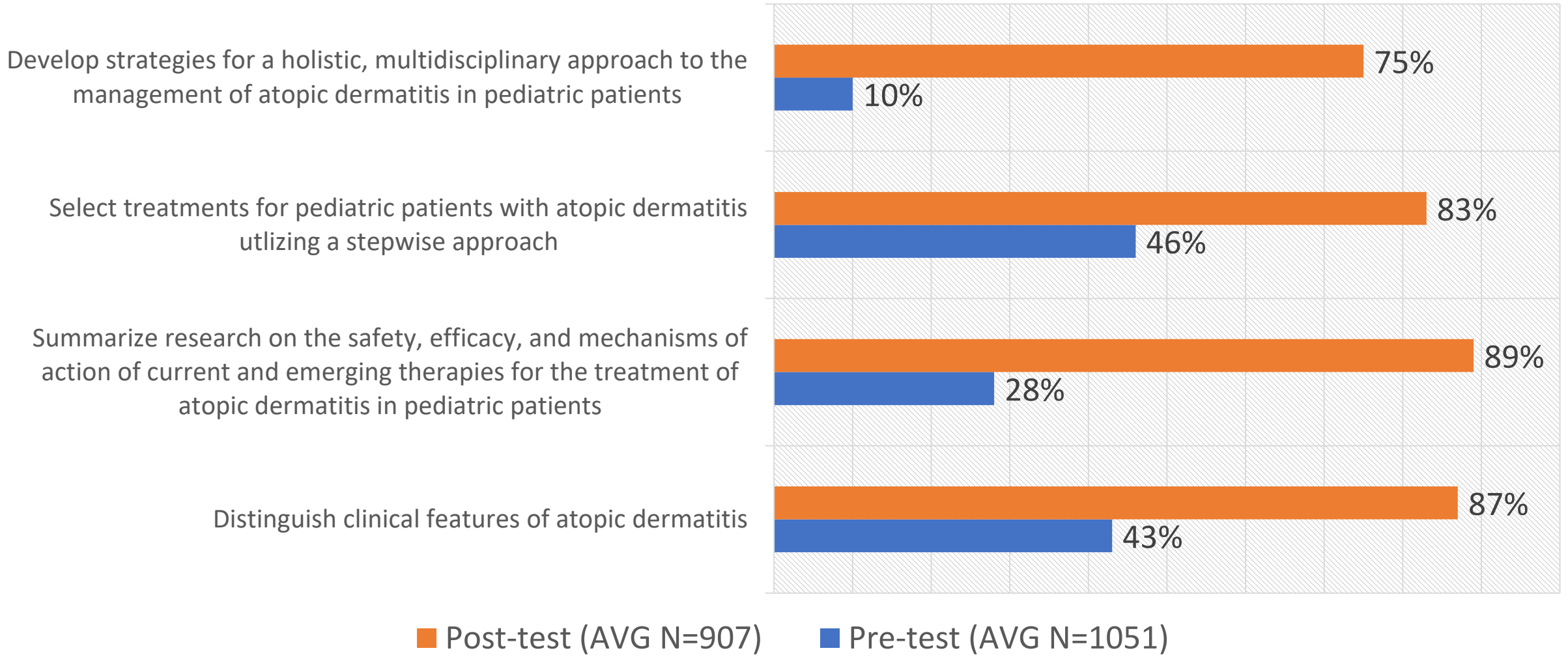


**52%** Absolute Knowledge Gain

# Level 3 Outcomes – Knowledge Gain By Learning Objective

[Final Outcomes Summary: Online]

### Pre/Post-test by Learning Objective



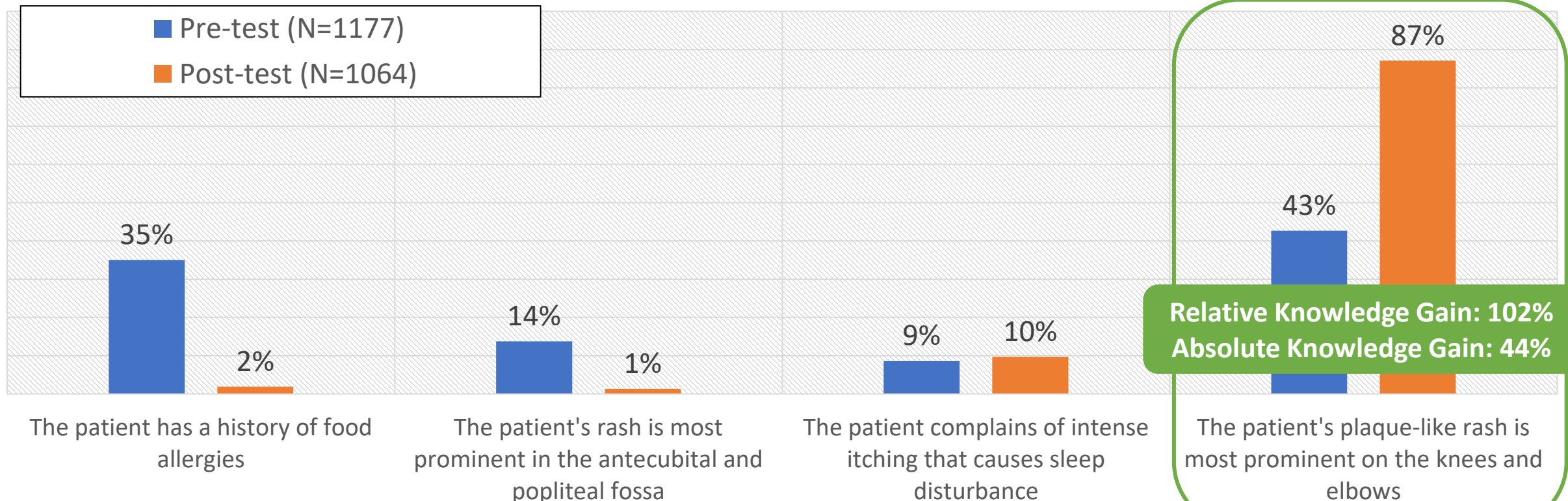
# Level 3&4 Outcomes (Knowledge/Competence):

## Question 1

[Final Outcomes Summary: Online]

Learning Objective: *Distinguish clinical features of atopic dermatitis*

Q1: Which of the following clinical or historical features would make you suspect a diagnosis other than atopic dermatitis?



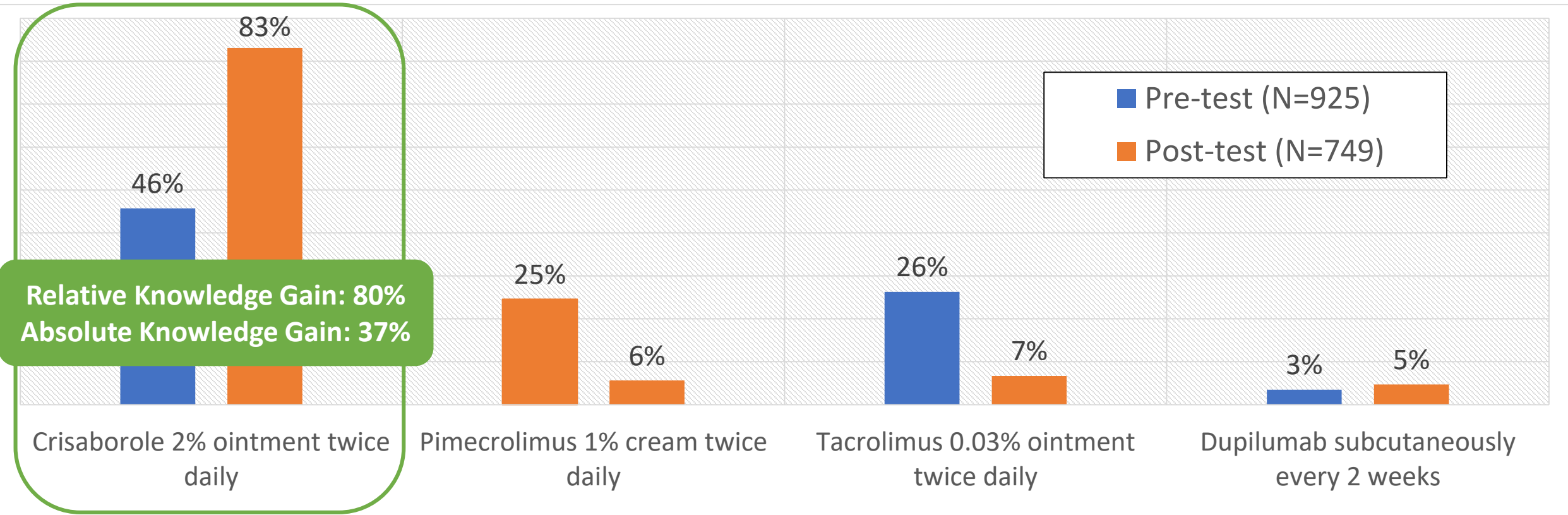
# Level 3&4 Outcomes (Knowledge/Competence):

## Question 2

[Final Outcomes Summary: Online]

*Learning Objective: Select treatments for pediatric patients with atopic dermatitis utilizing a stepwise approach*

**Q2: A 3-month old infant presents with moderate atopic dermatitis. Which of the following treatments is age appropriate?**



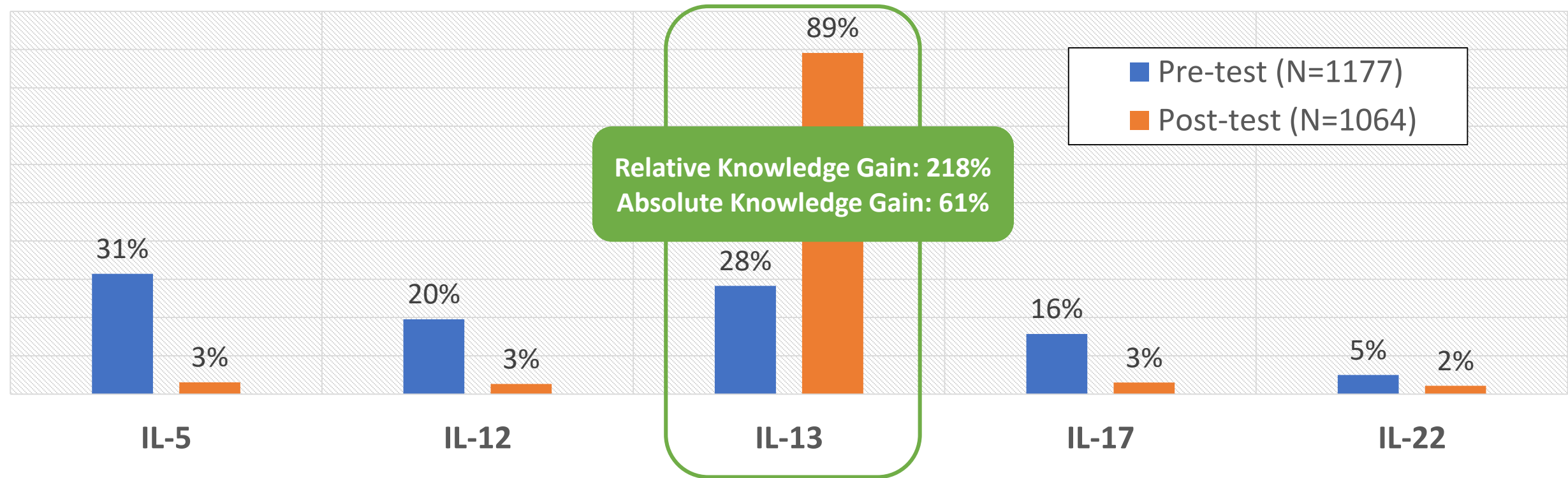
# Level 3&4 Outcomes (Knowledge/Competence):

## Question 3

[Final Outcomes Summary: Online]

**Learning Objective:** Summarize research on the safety, efficacy, and mechanisms of action of current and emerging therapies for the treatment of atopic dermatitis in pediatric patients

**Q3:** Which of the following cytokines best link the skin barrier with the systemic immune response in AD?



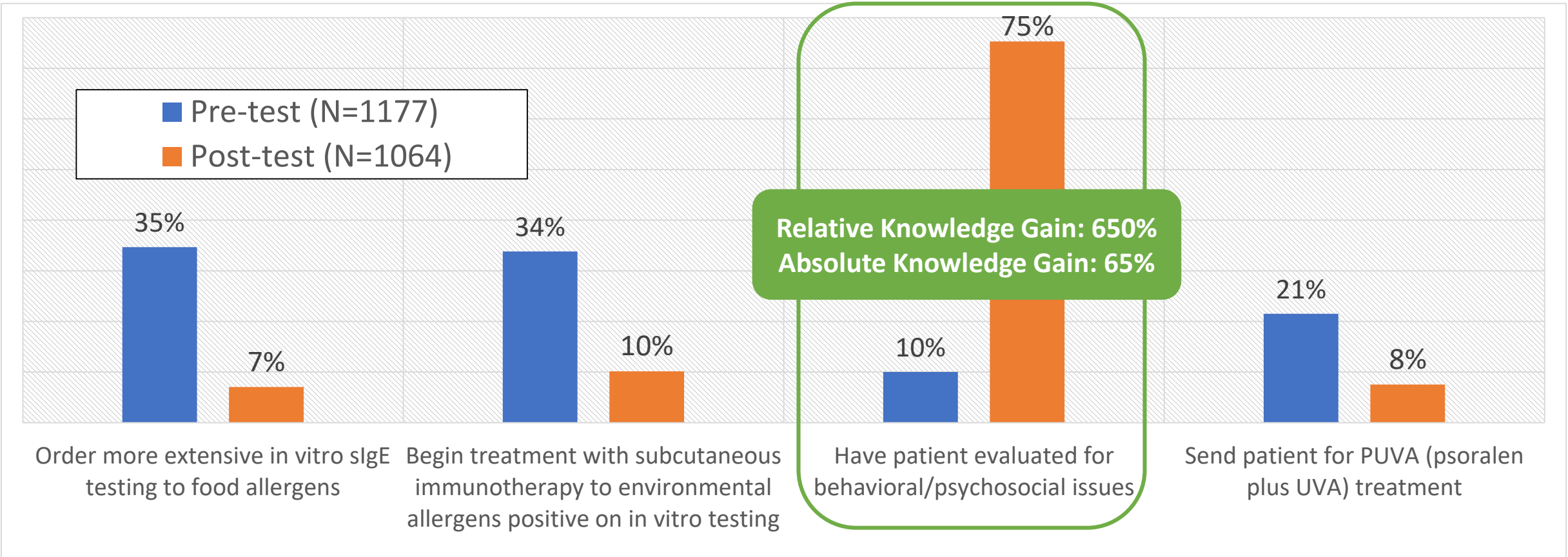
# Level 3&4 Outcomes (Knowledge/Competence):

## Question 4

[Final Outcomes Summary: Online]

**Learning Objective:** *Develop strategies for a holistic, multidisciplinary approach to the management of atopic dermatitis in pediatric patients*

**Q4:** Your patient is a 12-year-old male with AD since infancy. For the past year, his eczema has been severe and not responding to a number of topical and systemic therapies. What would be your next step for his care?

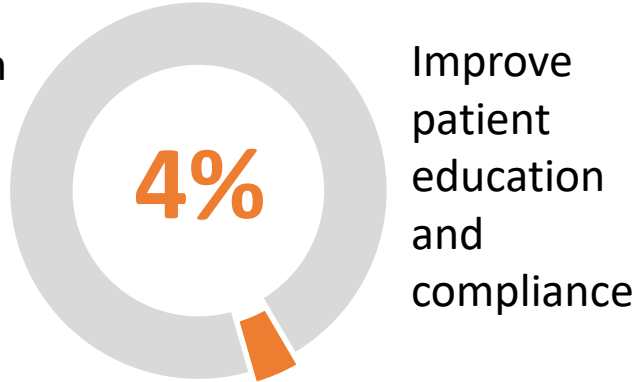
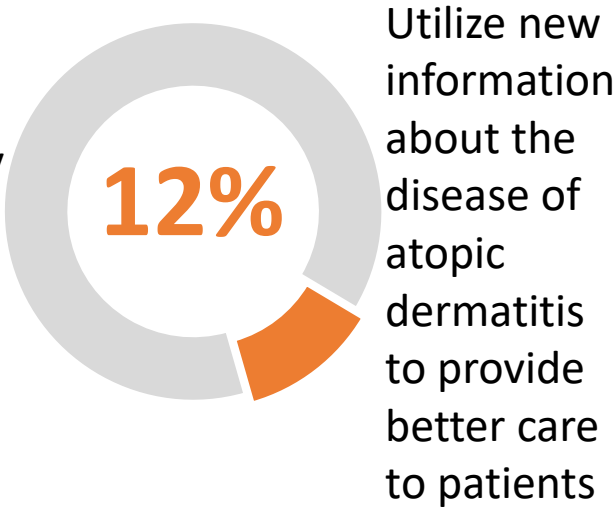
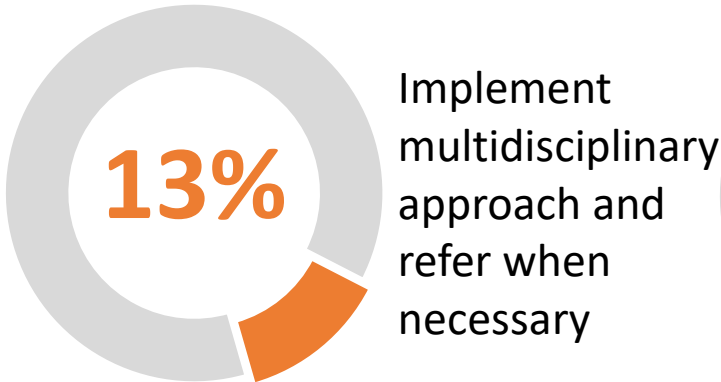
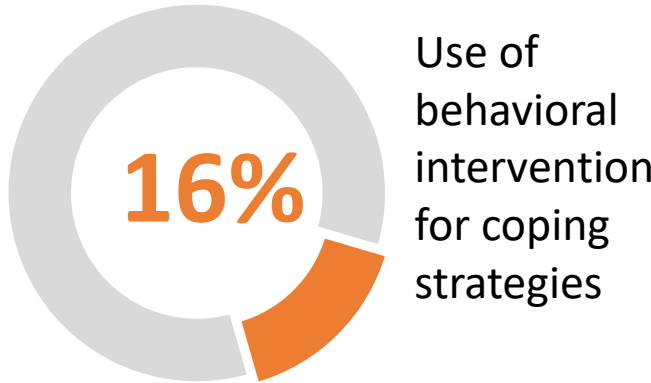
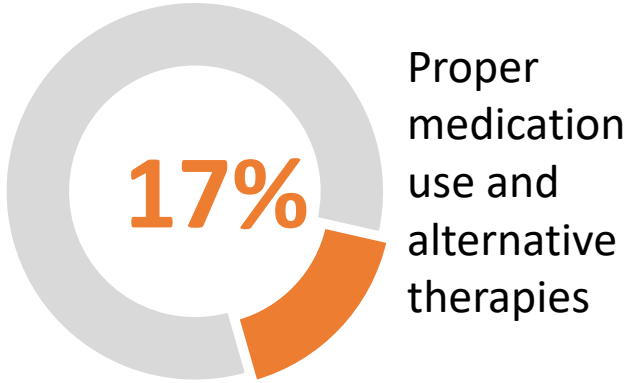
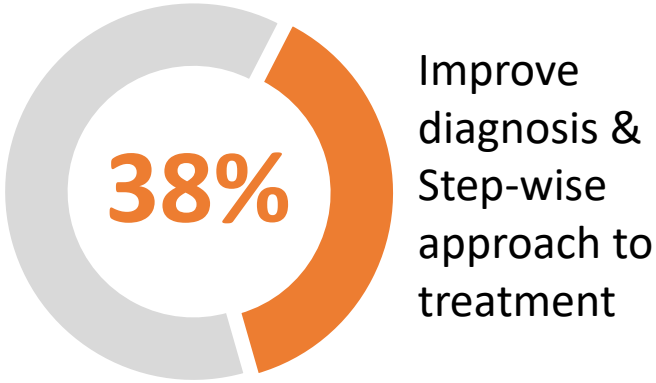


# Level 4 Outcomes: Competence

[Final Outcomes Summary: Online]

**93%**  
N=972

Evaluation respondents intend to make changes in practice as a result of the activity



N=134



# Program Evaluation

[Final Outcomes Summary: Online]

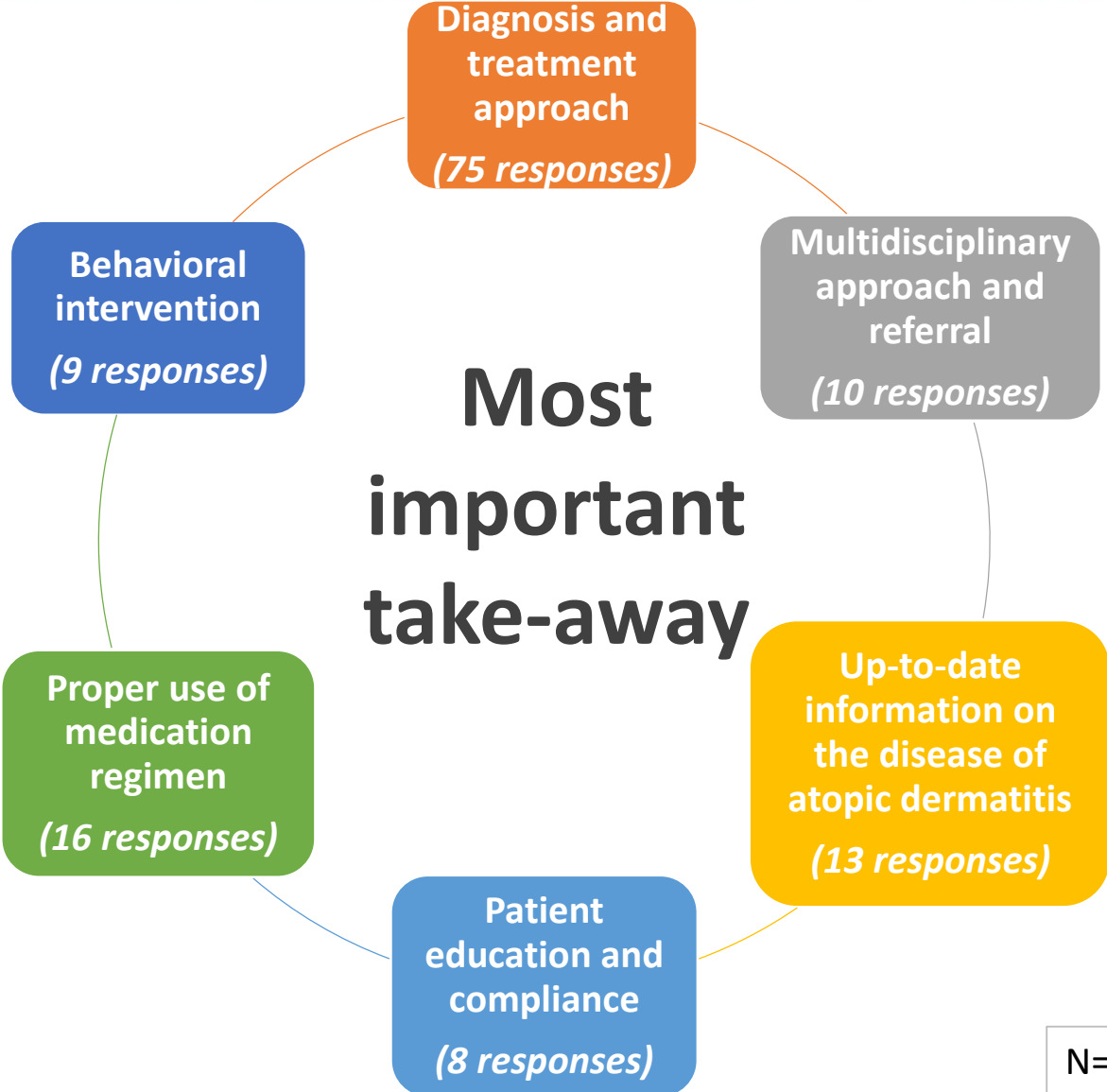
98%

- Material presented in an objective manner and free of commercial bias

98%

- Content presented was evidence-based and clinically relevant

N=972



N=131

## Strategies for Overcoming Barriers

- Gaining parental commitment to following therapies
- Insurance coverage
- Treatment options
- Changes of skin with prolonged use of topical steroids

78%

N=972

Evaluation respondents indicated the activity addressed strategies for overcoming barriers to optimal patient care

# Program Evaluation

[Final Outcomes Summary: Online]

## What challenges do you face in selecting treatment in atopic dermatitis patients?

Patient and parent compliance with treatment

Concern over using stronger treatments like topical corticosteroids

Deciding which topical medication to start with

Knowledge of medications

## What makes differentiating atopic dermatitis from other dermatologic conditions most challenging for you?

Role of contact allergens

Similar presenting symptoms

Skin appearance

Long-term nature of disease

## What topics would you like more information about in future educational activities?

Atopic dermatitis treatments by age

Psoriasis

Review of medications and new biologics for AD

Pediatric asthma, food allergies

Sinusitis

Joint disorders

Hansen disease

Seborrhea

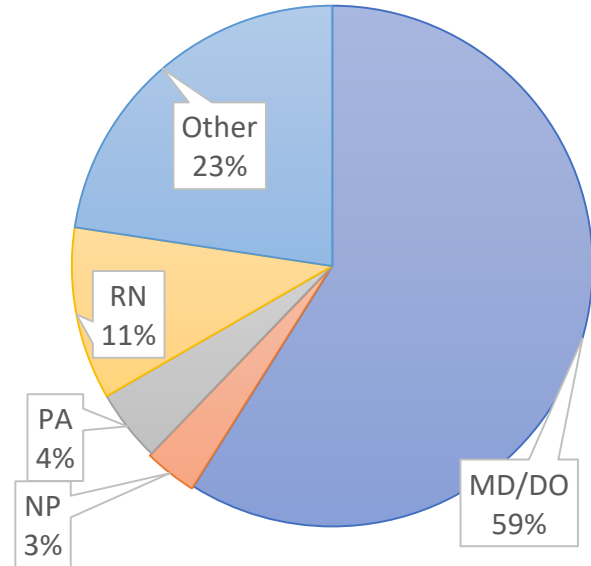


# A Holistic Approach to Multidisciplinary Management of Atopic Dermatitis in Pediatric Patients: Lessons from an Academic Medical Center

[Final Outcomes Summary: Live]

## Participation

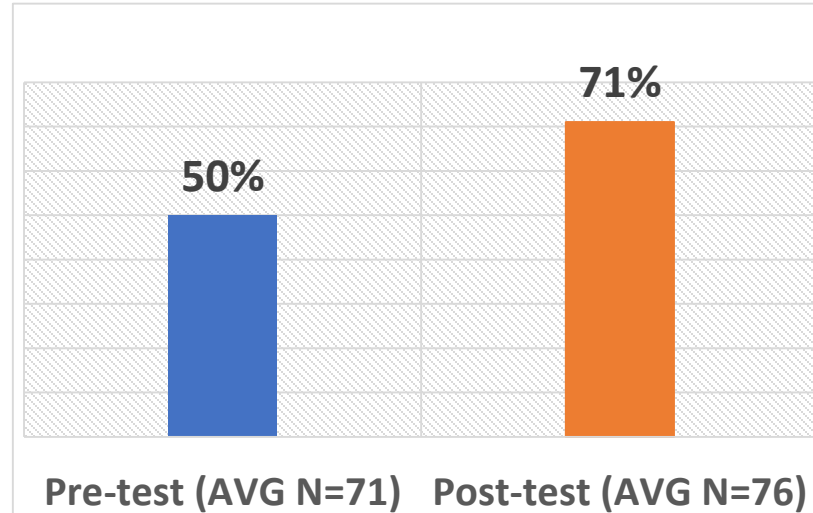
MD/DO=198  
PA=15  
RN=36  
NP=11  
Other=76  
**Total=336**



66% of learners were physicians and advanced practice providers

Potential Impact to 21,580 patient visits this year

## Overall Knowledge Gain



42% Relative Knowledge Gain  
21% Absolute Knowledge Gain

## Top 3 Practice Changes

86% of evaluation respondents (N=77) reported they intend to make changes to their practice

- ✓ Initiate new medications and therapies
- ✓ Evaluate patients for psychosocial factors
- ✓ Implement a holistic, multidisciplinary approach to atopic dermatitis treatment

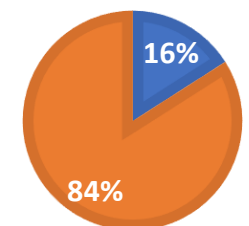
## Persistent Gaps

A gap persists related to recognition of appropriate treatment options for atopic dermatitis in pediatric patients

## QUESTION 2

Correct Incorrect

84% remained unable to identify all age appropriate treatment options at post-test



# Qualitative Educational Impact Summary

[Final Outcomes Summary: Live]

## Evaluation Respondents

**336**

Total Learners

Who see

**415**

Pediatric AD  
Patients Weekly

Which translates to

**21,580**

Potential patient  
Visits Annually

## Educational Impact

**84%** of evaluation respondents reported confidence in developing strategies for a holistic, multidisciplinary approach to the management of atopic dermatitis in pediatric patients after the activity. [N=79]

**77%** relative knowledge gain in learners with regard to strategies for a holistic, multidisciplinary approach in pediatric atopic dermatitis management. [N=70]

**82%** of evaluation respondents reported confidence in distinguishing the clinical features of atopic dermatitis after the activity. [N=79]

## Practice Change

**86%** of evaluation respondents reported they intended to make changes to their practice as a result of the educational activity [N=223]

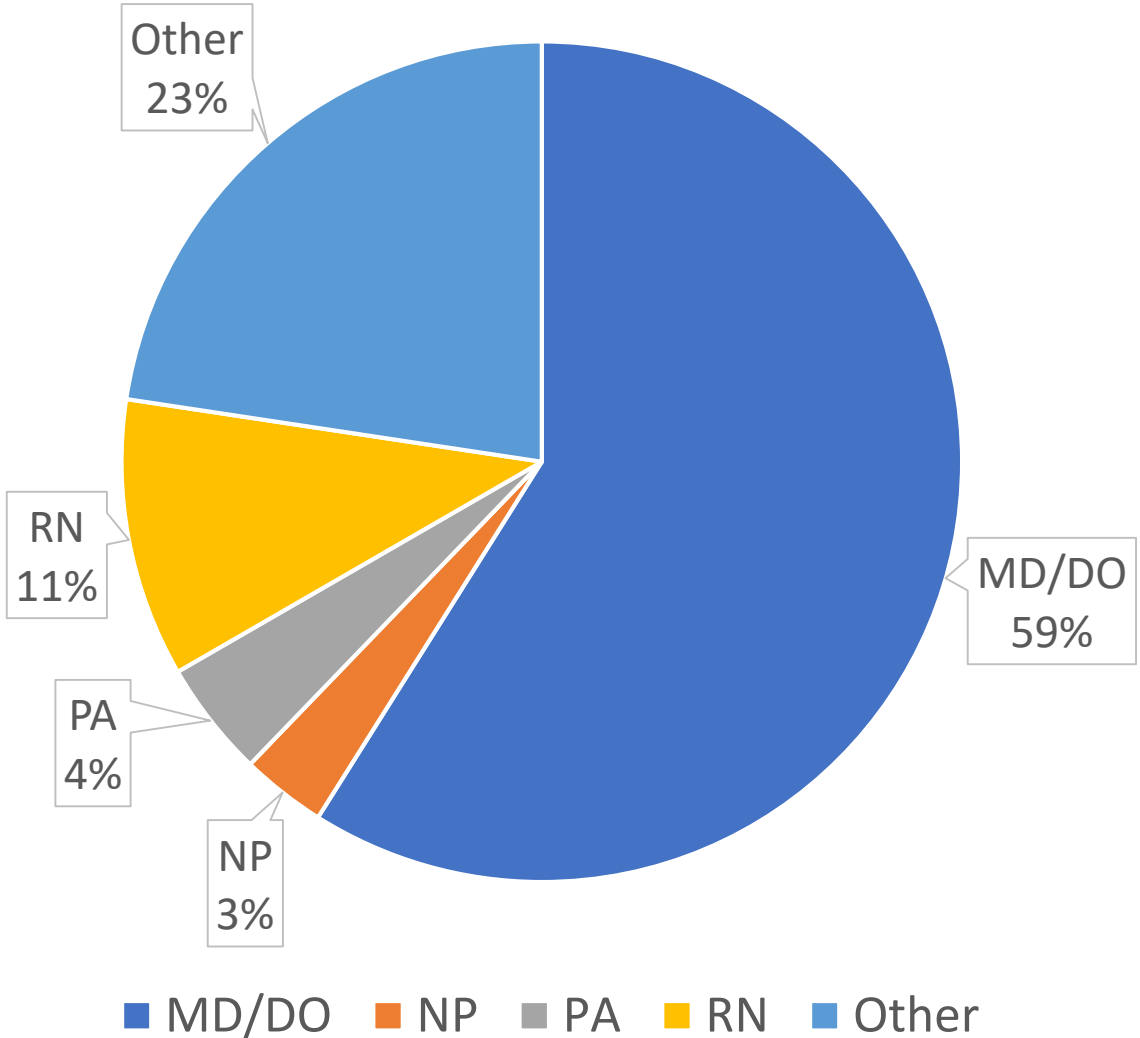
**86%** of learners indicated the activity addressed strategies for overcoming barriers to optimal patient care [N=74]

***“The speaker was enthusiastic and sincere. I enjoyed her point of view and clear concern for her patients.”***

– Live Webinar Participant –

# Level 1 Outcomes: Participation by Degree

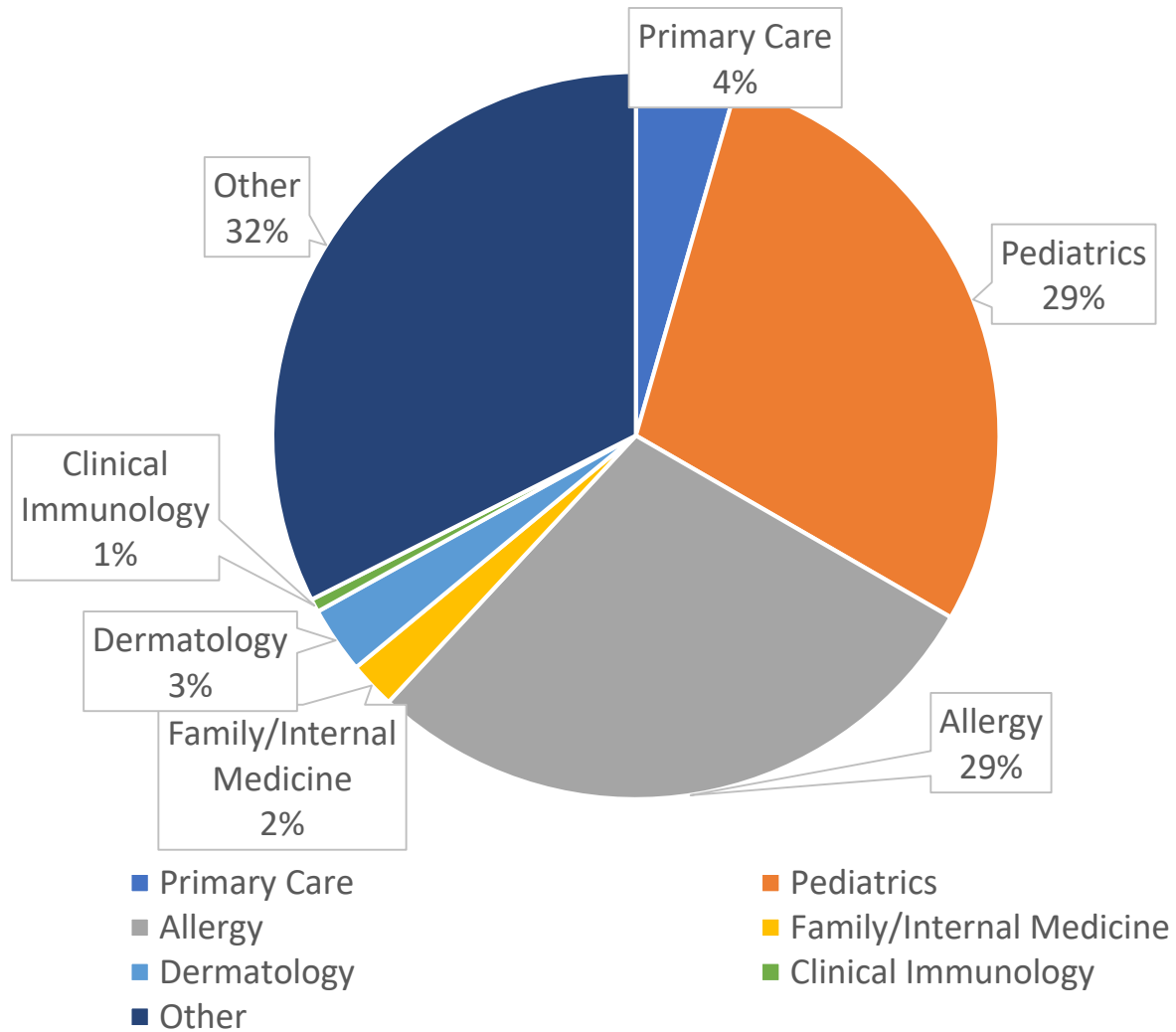
[Final Outcomes Summary: Live]



Degree	Total
MD/DO	198
PA	15
RN	36
NP	11
Other	76
	<b>336</b>

# Level 1 Outcomes: Participation by Specialty

[Final Outcomes Summary: Live]



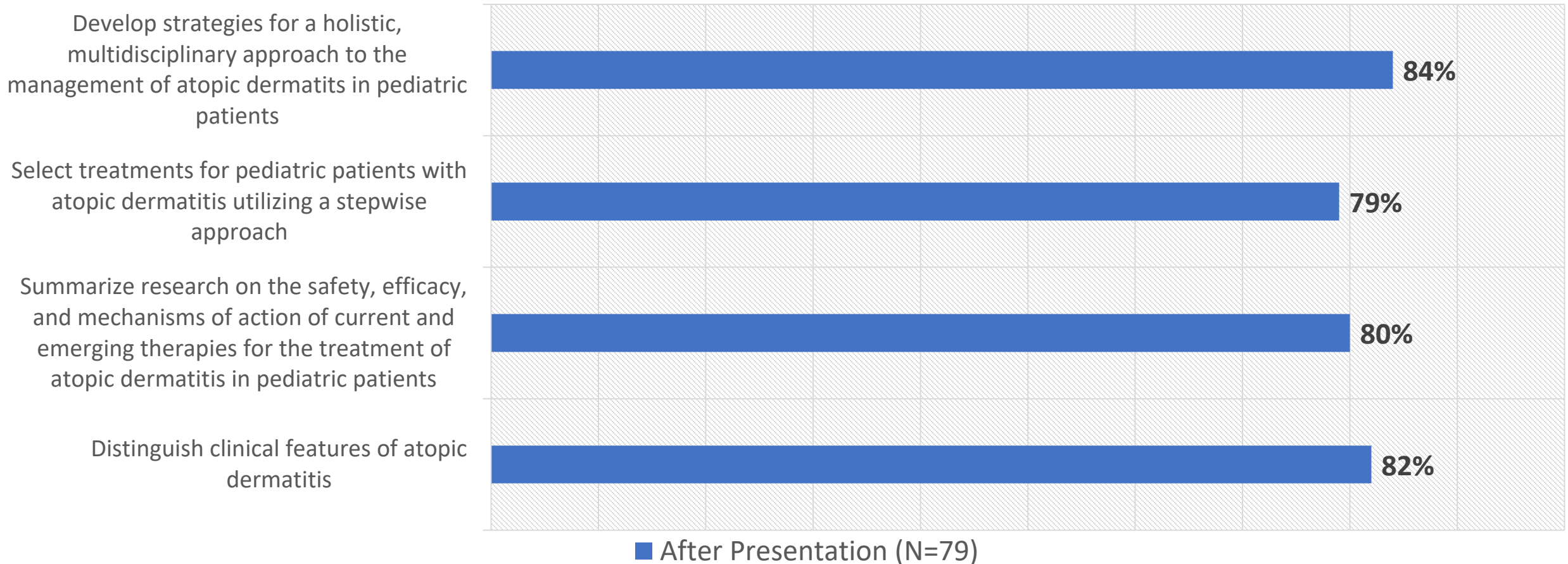
Specialty	Total
Pediatrics	97
Allergy	96
Primary Care	15
Dermatology	10
Family/Internal Medicine	7
Clinical Immunology	2
Other	109
	<b>336</b>



# Level 2&3 Outcomes: Learning & Satisfaction

[Final Outcomes Summary: Live]

Learners reported their confidence on the learning objectives after the presentation (somewhat confident – very confident)

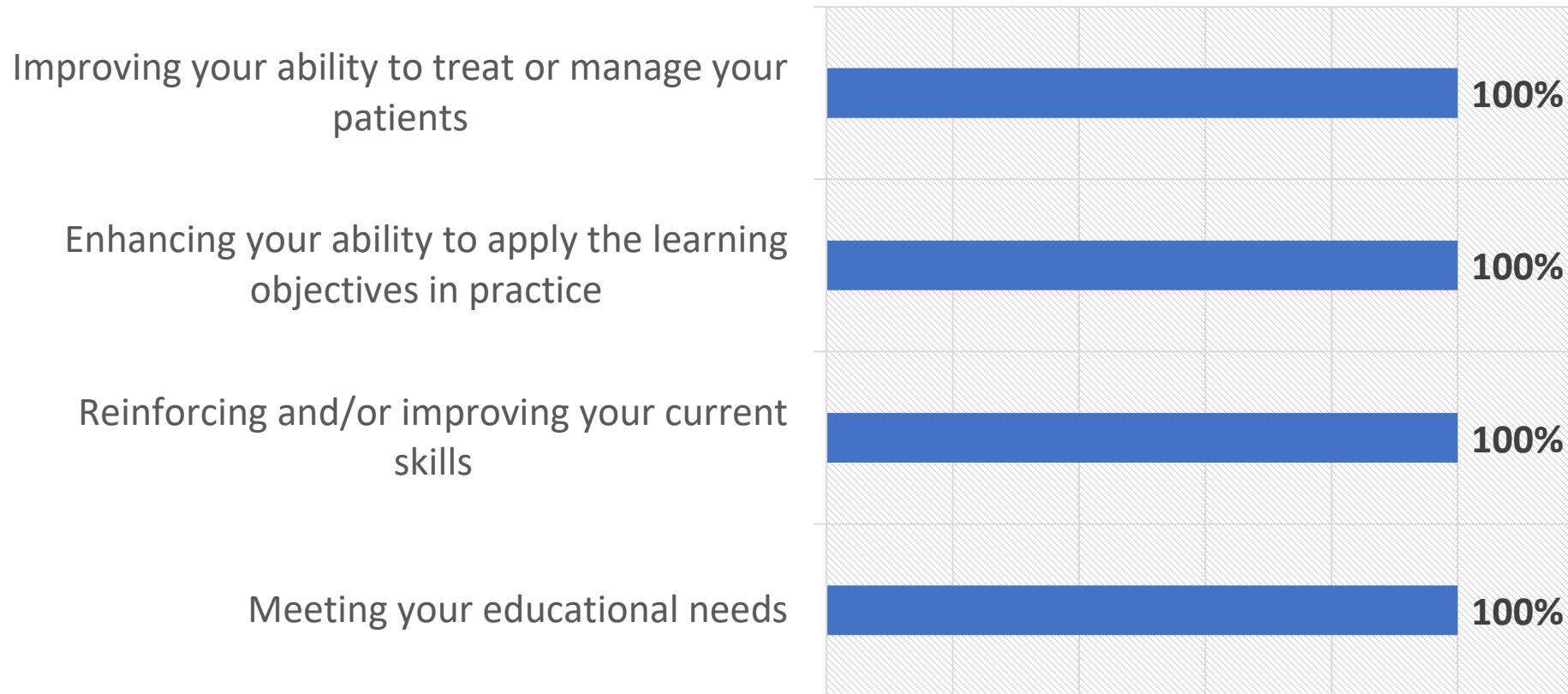


# Level 2&3 Outcomes: Learning & Satisfaction

[Final Outcomes Summary: Live]

## *Analysis of participant responses related to educational needs*

Participants reported the activity was “Excellent” to “Good” at:

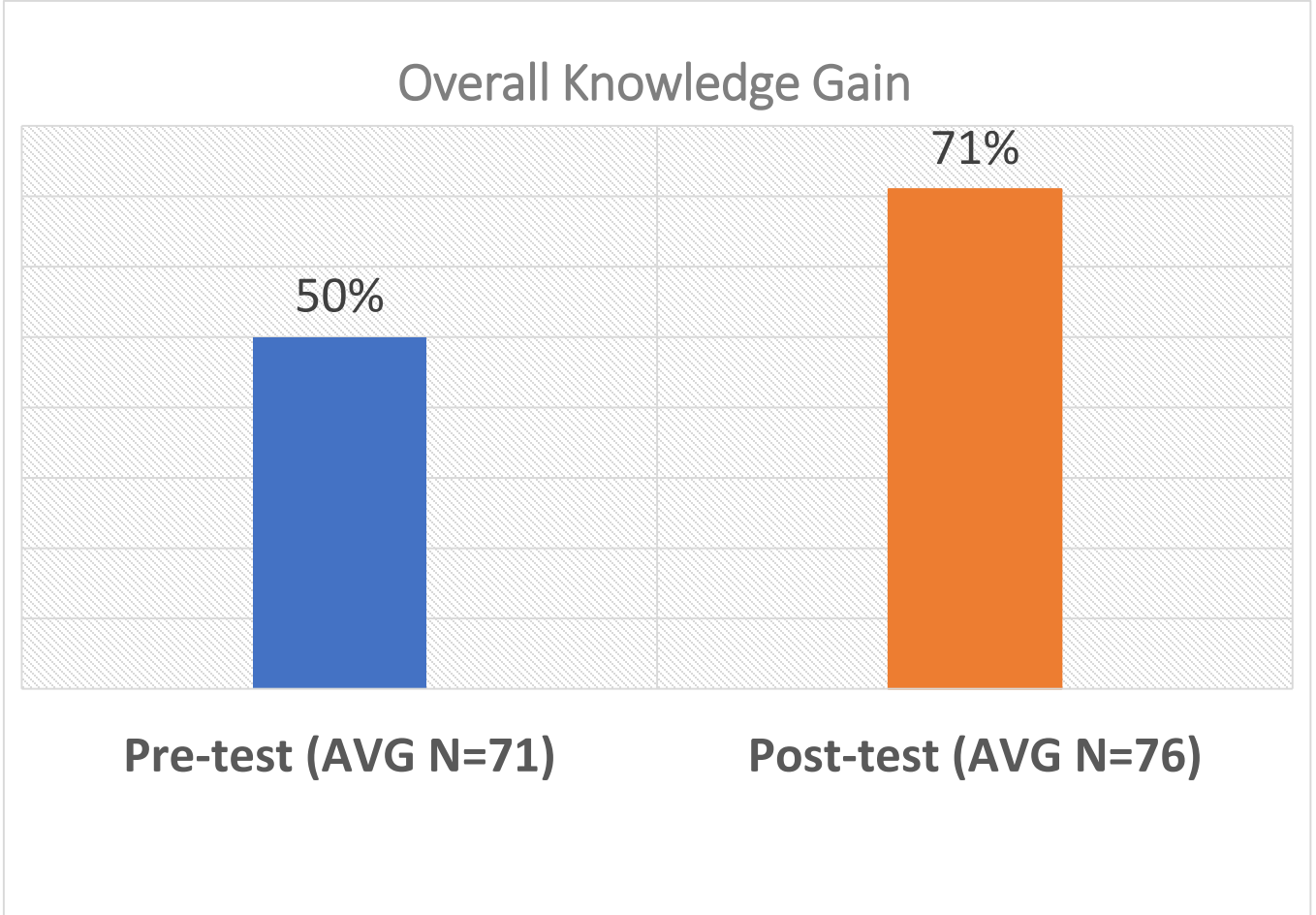


■ Excellent to Good (N=36)

Learners reported high levels of satisfaction related to the ability of the activity to impact practical applications

# Level 3 Outcomes: Overall Knowledge Gain

[Final Outcomes Summary: Live]



**42%** Relative Knowledge Gain

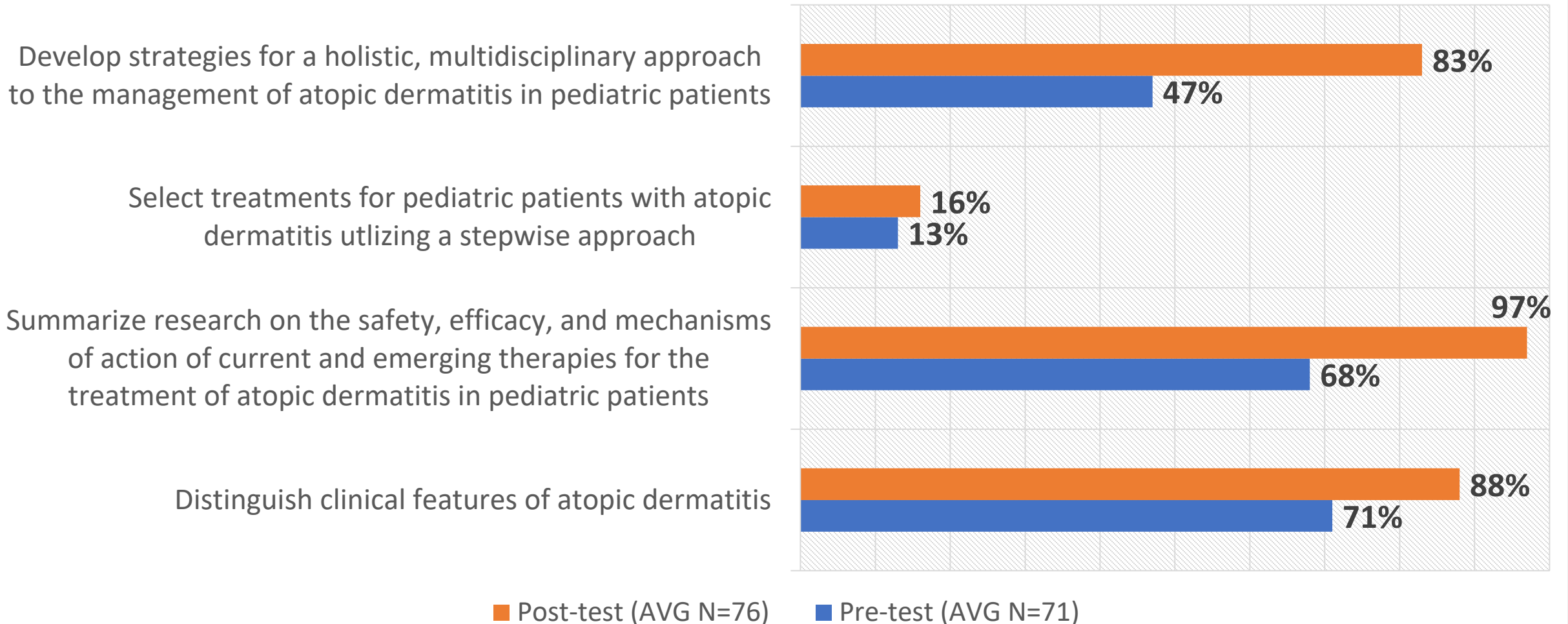
↑

**21%** Absolute Knowledge Gain

# Level 3 Outcomes: Knowledge Gain By Learning Objective

[Final Outcomes Summary: Live]

## Pre/Post-test by Learning Objective



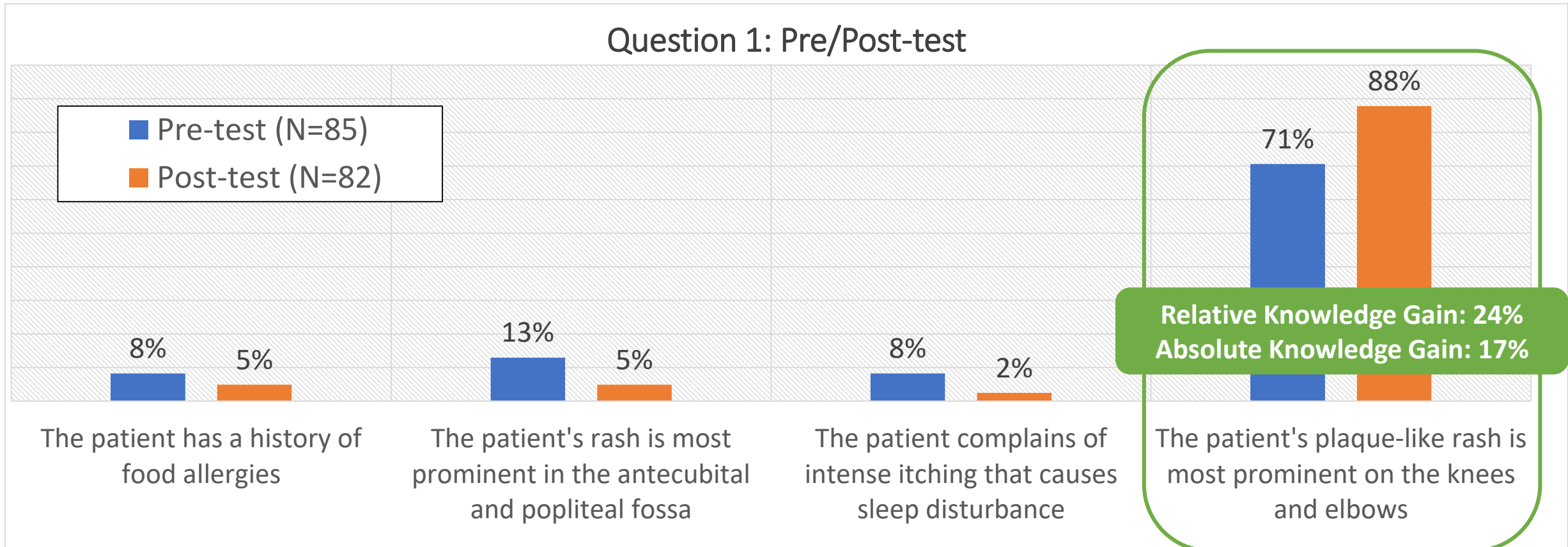
# Level 3&4 Outcomes (Knowledge/Competence):

## Question 1

[Final Outcomes Summary: Live]

Learning Objective: *Distinguish clinical features of atopic dermatitis*

Q1: Which of the following clinical or historical features would make you suspect a diagnosis other than atopic dermatitis?



# Formative Assessment

[Final Outcomes Summary: Live]

National Jewish Health strives to offer the best possible education to physicians and healthcare providers. Our gold standard approach to an activity with a live and online component includes formative assessment between sessions to support evidence-based refinement and improvement of subsequent educational material.

Upon assessment of knowledge change for Question 2 in the live sessions, we identified:

- **84% of learners** remained unable to identify all age appropriate treatments from the list of options provided.
- However, **78%** of learners were able to identify at least one correct option.

This question was revised for the online enduring activity to a multiple choice format with only one correct answer option [see slide 13].

This allowed for more focused analysis of the data to better ascertain knowledge and competence gains in selecting treatments for pediatric patients with atopic dermatitis.

# Level 3&4 Outcomes (Knowledge/Competence):

## Question 2

[Final Outcomes Summary: Live]

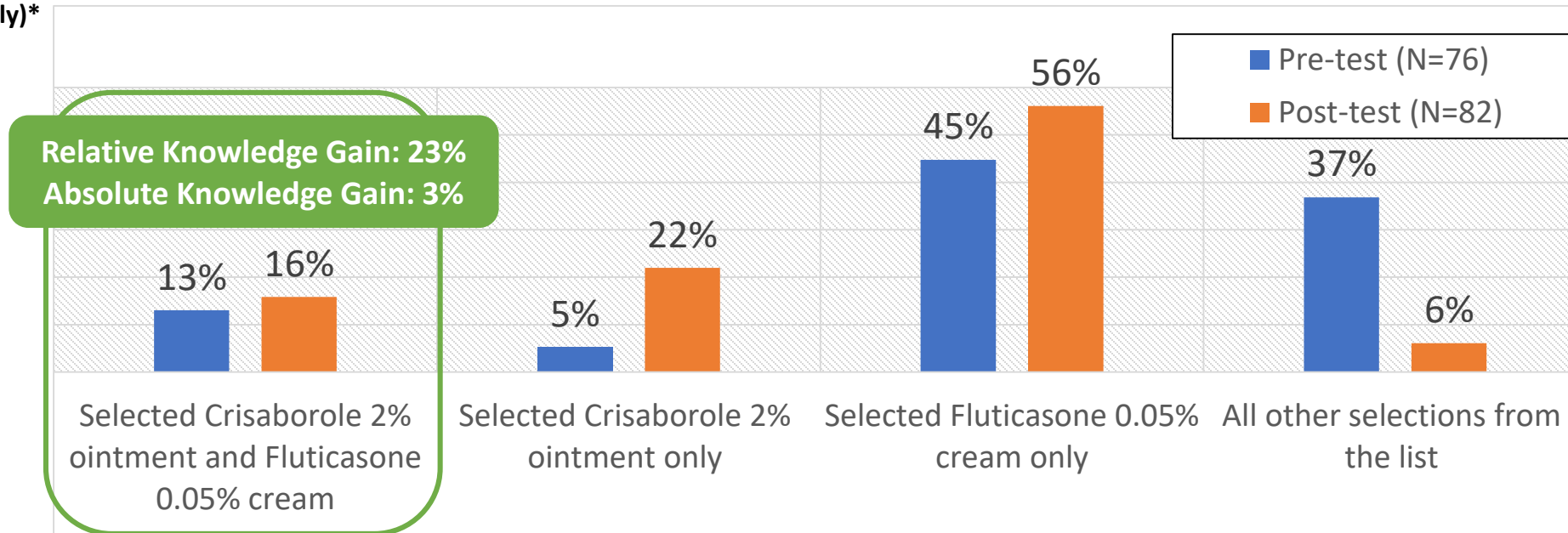
**Learning Objective:** *Select treatments for pediatric patients with atopic dermatitis utilizing a stepwise approach*

**Q2:** A 3-month old infant presents with moderate atopic dermatitis. Which of the following treatments is age appropriate? Select all that apply.

Learners were asked to select all age appropriate treatments from the list. The correct answer is crisaborole 2% ointment **and** fluticasone 0.05% cream, as both are age appropriate options. Many learners selected one or the other, but not both. The graph below highlights the proportion of learners who selected both crisaborole 2% **and** fluticasone 0.05% (correct); just crisaborole 2% (partially correct); just fluticasone 0.05% (partially correct); or any other combination of options from the list (incorrect).

\*Original Answer Options (Select All That Apply)\*

- a. ***Crisaborole 2% ointment twice daily***
- b. Pimecrolimus 1% cream twice daily
- c. Tacrolimus 0.03% ointment twice weekly
- d. ***Fluticasone 0.05% cream twice daily***
- e. Dupilumab subcutaneously every 2 weeks



# Level 3&4 Outcomes (Knowledge/Competence):

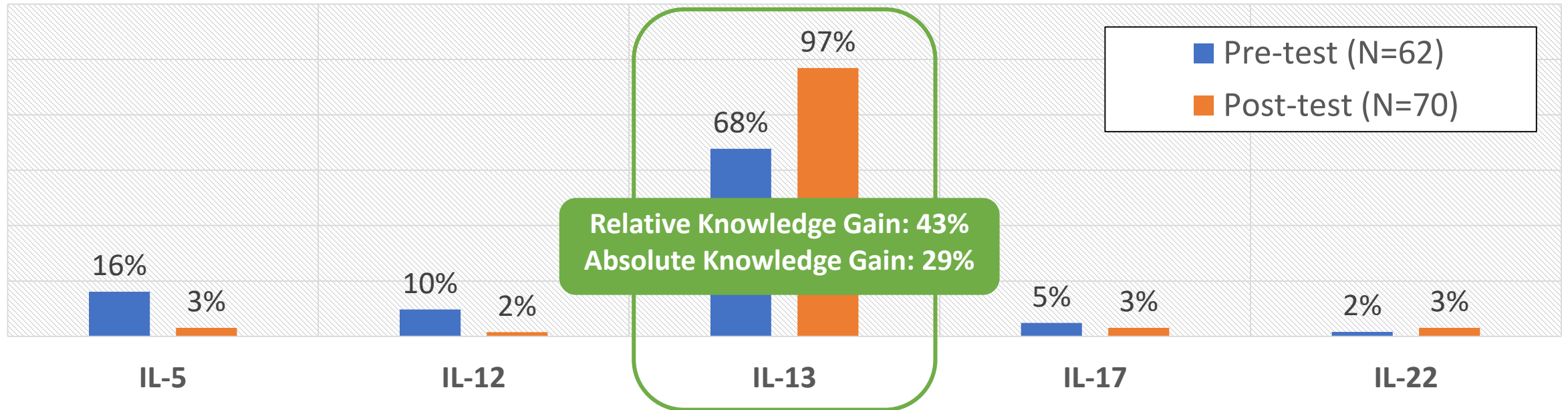
## Question 3

[Final Outcomes Summary: Live]

**Learning Objective:** Summarize research on the safety, efficacy, and mechanisms of action of current and emerging therapies for the treatment of atopic dermatitis in pediatric patients

**Q3:** Which of the following cytokines best link the skin barrier with the systemic immune response in AD?

Question 3: Pre/Post-test





# Level 3&4 Outcomes (Knowledge/Competence):

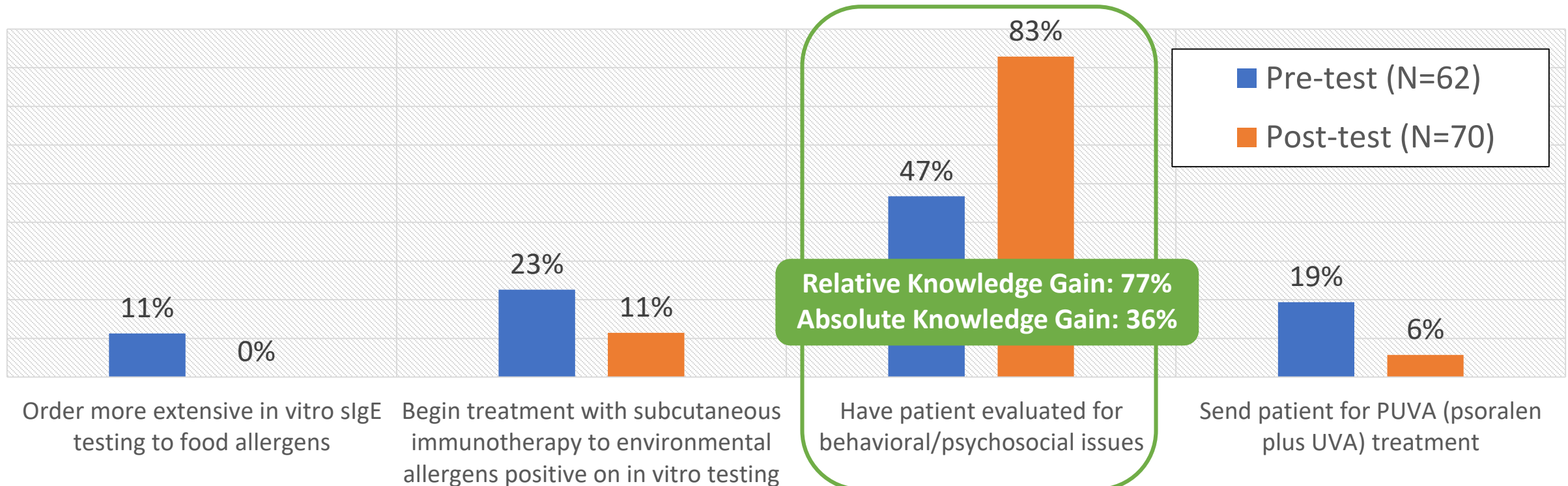
## Question 4

[Final Outcomes Summary: Live]

**Learning Objective:** *Develop strategies for a holistic, multidisciplinary approach to the management of atopic dermatitis in pediatric patients*

**Q4:** Your patient is a 12-year-old male with AD since infancy. For the past year, his eczema has been severe and not responding to a number of topical and systemic therapies. What would be your next step for his care?

Question 4: Pre/Post-test



# Level 4 Outcomes (Competence)

[Final Outcomes Summary: Live]

86%

N=77

Learners intend to make changes in practice as a result of the activity

37%

Initiate new medications and therapies

10%

Evaluate for psychosocial factors

8%

Implement a holistic, multidisciplinary approach to treatment

8%

Early referral for treatment

N=49

# Program Evaluation

[Final Outcomes Summary: Live]

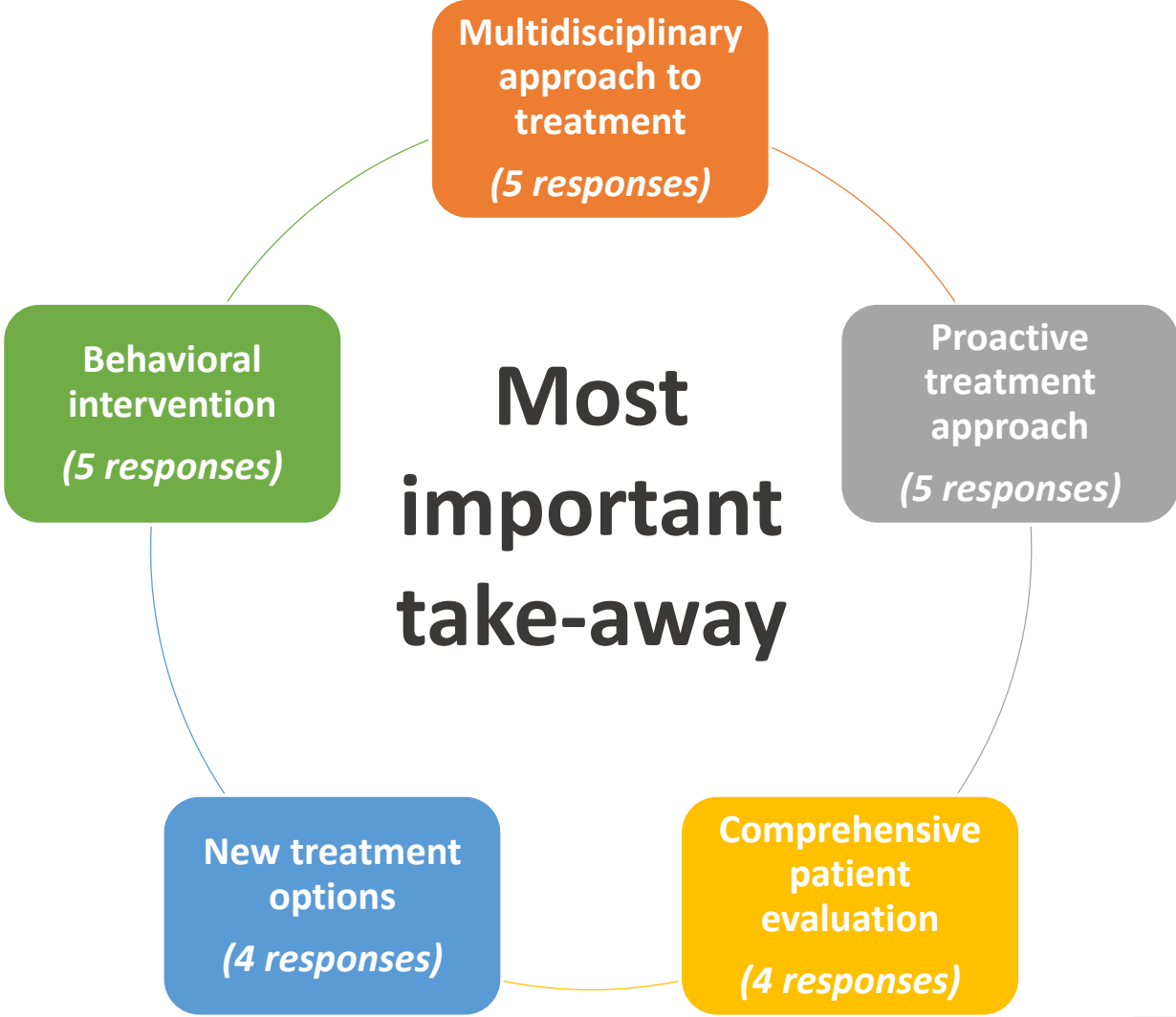
99%

- Material presented in an objective manner and free of commercial bias

100%

- Content presented was evidence-based and clinically relevant

N=40



N=54

# Program Evaluation: Live Webinar Series

[Final Outcomes Summary: Live]

## Strategies for Overcoming Barriers

- Working with an interdisciplinary team
- Access to care
- Patient education
- Compliance
- Excessive allergy testing and food withdrawals
- Patient and caregiver fear of steroids

86%

N=74

Survey respondents indicated the activity addressed strategies for overcoming barriers to optimal patient care

# Program Evaluation: Live Webinar Series

[Final Outcomes Summary: Live]

## What challenges do you face in selecting treatment in atopic dermatitis patients?

Patient and parent compliance with treatment

Lack of experience with newer agents

Insurance coverage

Age limitations

## What makes differentiating atopic dermatitis from other dermatologic conditions most challenging for you?

Previous therapies impact the presentation

Similar presenting symptoms

Condition recurrence and resistance to therapies

Significant up-to-date knowledge required for work-up

## What topics would you like more information about in future educational activities?

Rare dermatological conditions in pediatrics

Non-pharmacologic treatments

Other atopic disorders

Biologics

Food allergies

Updates on emerging therapies

# Accreditation

[Final Outcomes Summary: Live + Online]

NJH is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. The NJH Office of Professional Education produced and accredited this program and adhered to the updated ACCME guidelines.

NJH designates this enduring material for a maximum of *1.0 AMA PRA Category 1 Credit™*.

NJH designates this live activity for a maximum of *1.0 AMA PRA Category 1 Credit™*.

