Sequential Medical Education Programming Improves Both Knowledge of Clinical Data and Competence of Treatment Selection of Antipsychotic Therapies Among Psychiatrists

Medscape EDUCATION

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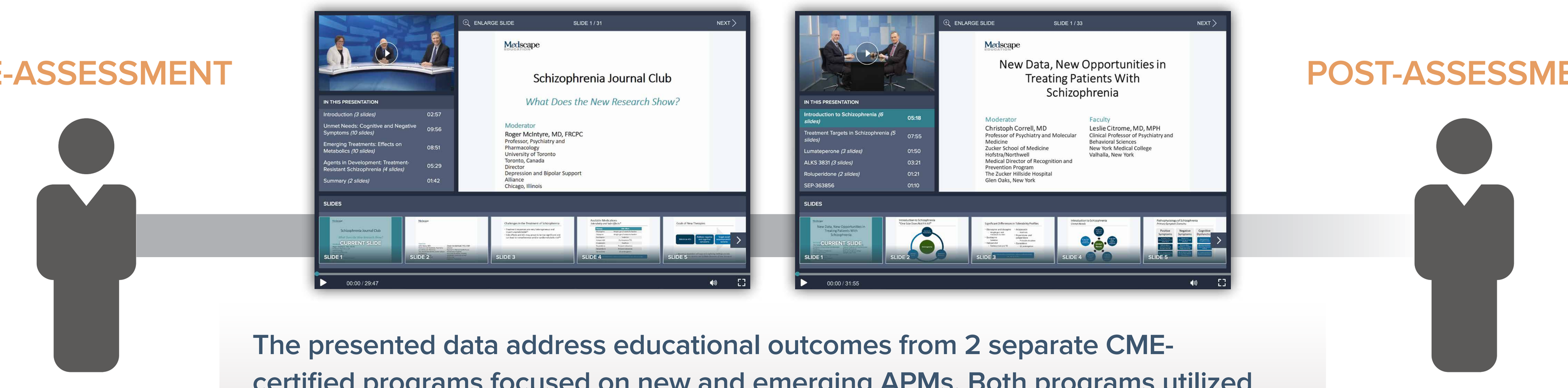
BACKGROUND

Schizophrenia is characterized by hallucinations and delusions—"positive" symptoms; flat affect, disorganized thought, low motivation—"negative" symptoms; and impairments in executive function, attention, and working memory—"cognitive" symptoms.[1] Although a range of antipsychotic medications (APMs) exists for treating schizophrenia, outcomes have historically been poor and primarily related to nonadherence caused by a wide range of factors, including cognitive deficits, perceived or actual adverse effects, lack of patient insight, poor efficacy, lack of social support, problems with the therapeutic alliance between the patient and healthcare team, cultural or religious beliefs, complexity of daily treatment regimens, drug abuse, and simple lack of follow-through.[2-4] Investigational and newly approved antipsychotic therapies utilize novel targets designed to better address the therapeutic deficits associated with established APMs. Previous data have shown that psychiatrists have little awareness of novel targets, clinical trial outcomes, or how to utilize emerging antipsychotic therapies in the clinic.[5,6] Two online medical education activities were developed to improve the awareness of data and clinical applicability newer APMs for the management of schizophrenia among psychiatrists.

METHODS

PRE-ASSESSMENT

POST-ASSESSMENT

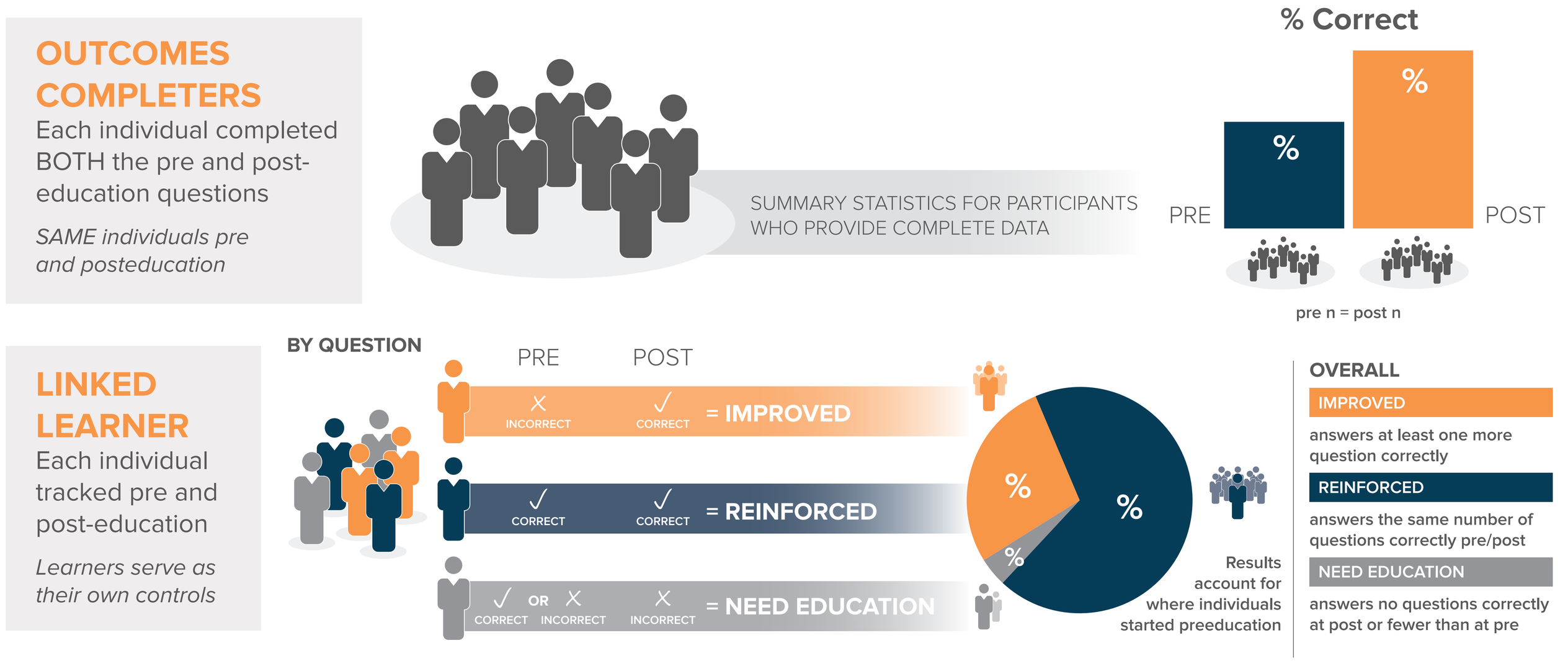


Program 1: Psychiatrists (n = 1,105)

Program 2: Psychiatrists (n = 707)

The presented data address educational outcomes from 2 separate CME-certified programs focused on new and emerging APMs. Both programs utilized psychiatry experts with specific expertise in newer antipsychotic therapies. The first program was an online educational activity consisting of a 30-minute video-based discussion format between 2 clinician experts. The second program was an online educational activity consisting of a 30-minute video-based discussion format between 3 clinician experts. Data for the 2-clinician program were collected between December 26, 2019 and March 6, 2020, whereas the data for the 3-clinician program were collected between January 31, 2020 and April 6, 2020.[7,8]

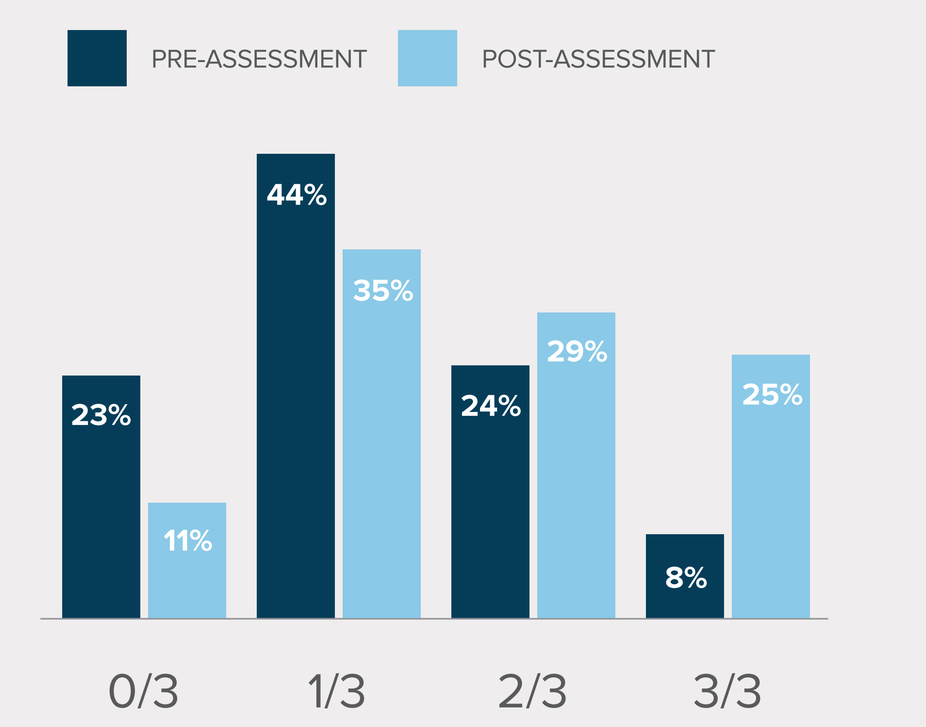
How to Read the Linked Learner Assessment



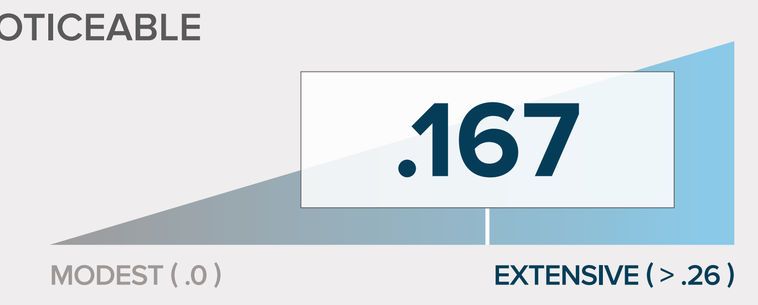
RESULTS

Program 1: Psychiatrists (n = 1,105)

% Correct Pre/Post Responses to All Questions



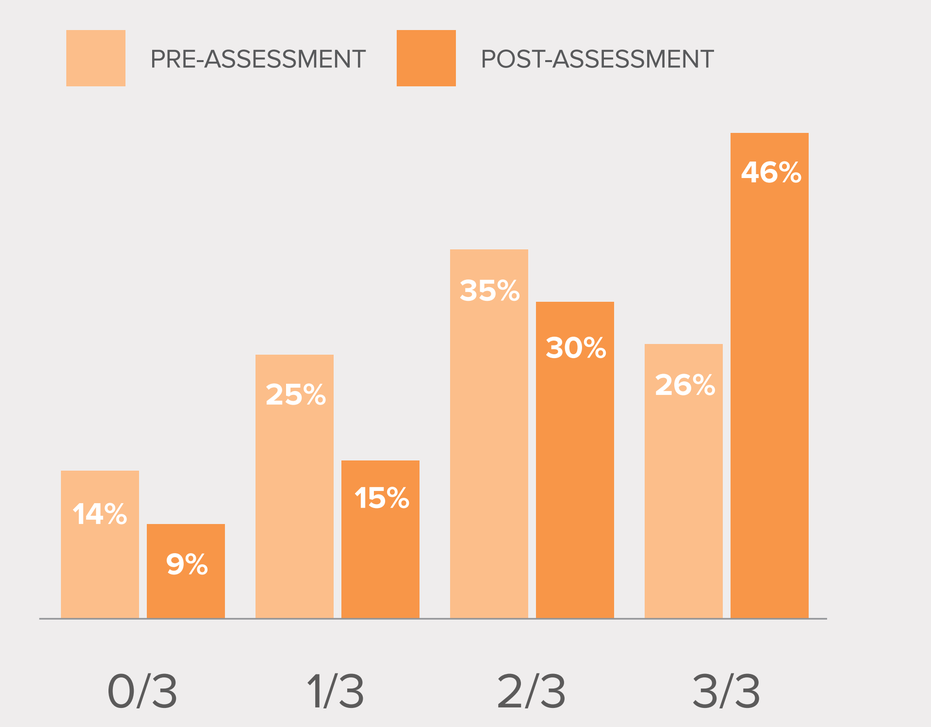
CRAMER'S V EFFECT SIZE: NOTICEABLE



CHI-SQUARE TEST **P <.001**
SIGNIFICANCE (P <.05)

Program 2: Psychiatrists (n = 707)

% Correct Pre/Post Responses to All Questions



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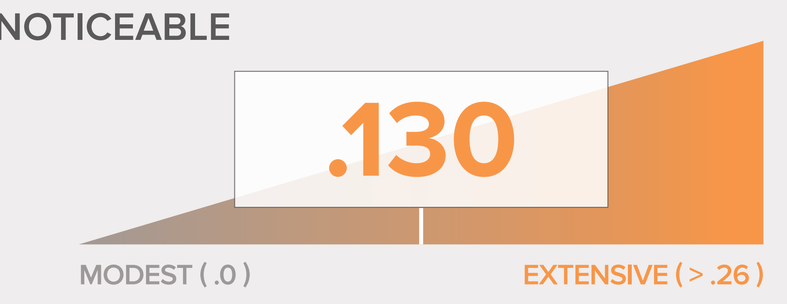
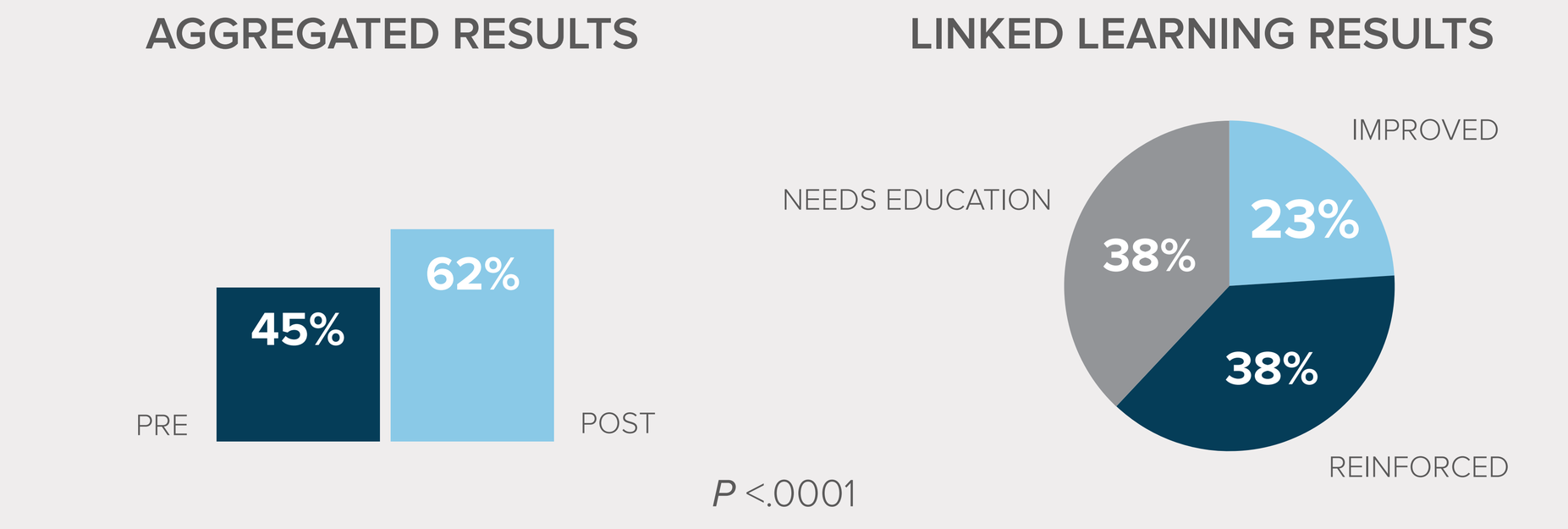


CHI-SQUARE TEST **P <.001**
SIGNIFICANCE (P <.05)

MECHANISM OF ACTION OF NOVEL APM

Low pre-education awareness of the MOA of lumateperone is significantly improved following CME.

Program 1: Psychiatrists (n = 1,105)

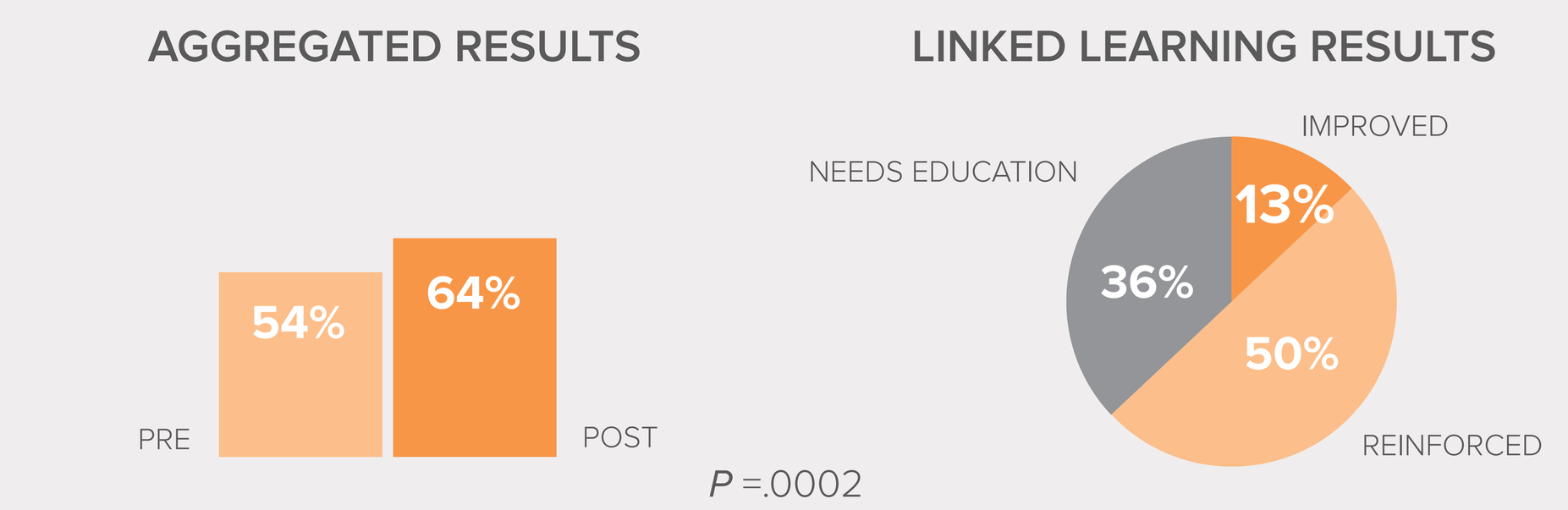


Lumateperone is a new treatment in development aiming to reduce overall symptoms of schizophrenia. What is currently known about its mechanism of action on dopamine 2 receptors (D_2Rs)? (Correct Answer: Presynaptic D_2R partial agonist and postsynaptic D_2R antagonist)

SELECTION OF LONG-ACTING APMS

CME exposure results in a significant improvement in competence regarding the selection of a long-acting APM for a patient with schizophrenia.

Program 2: Psychiatrists (n = 707)

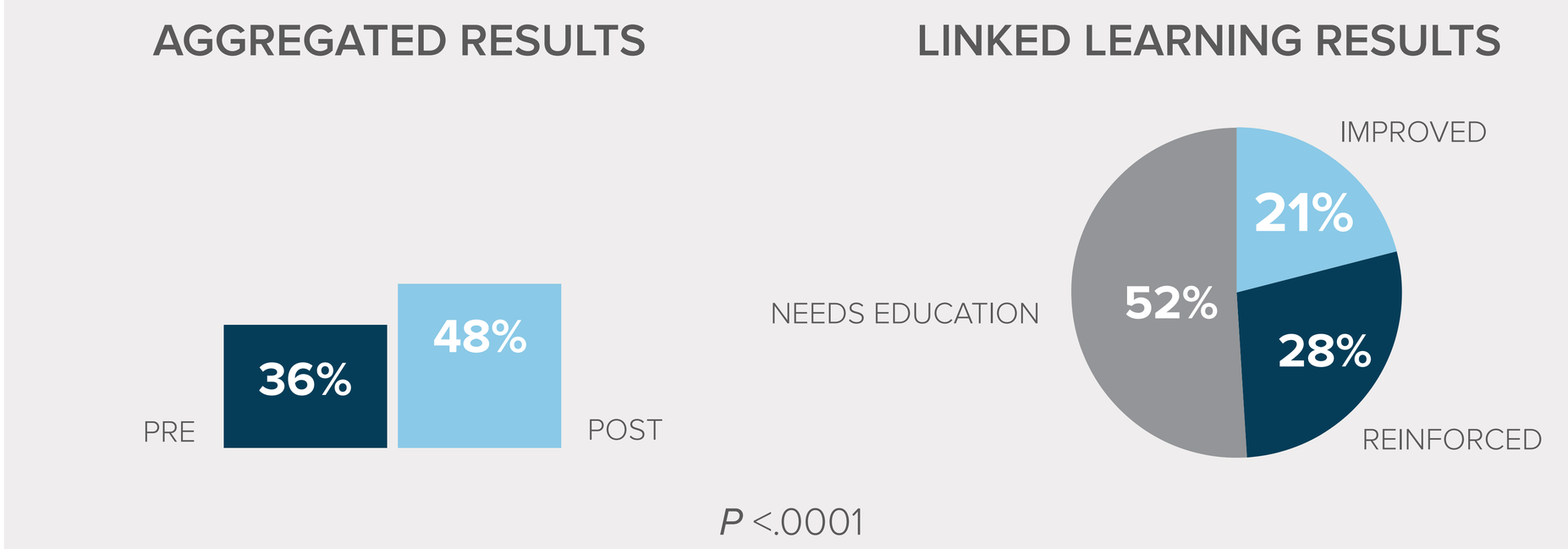


A 21-year-old woman diagnosed with schizophrenia 1 year ago was recently hospitalized following a relapse. She had been stabilized on olanzapine 15 mg/day for a few months but decided on her own that she was cured. Since she was also very selfconscious of her appearance due to an increased weight gain and didn't like feeling sleepy, she decided to stop her treatment. Which treatment maintenance approach would you recommend for this patient once the acute phase is under control? (Correct Answer: Aripiprazole lauroxil [LAI])

CLINICAL TRIAL OUTCOMES

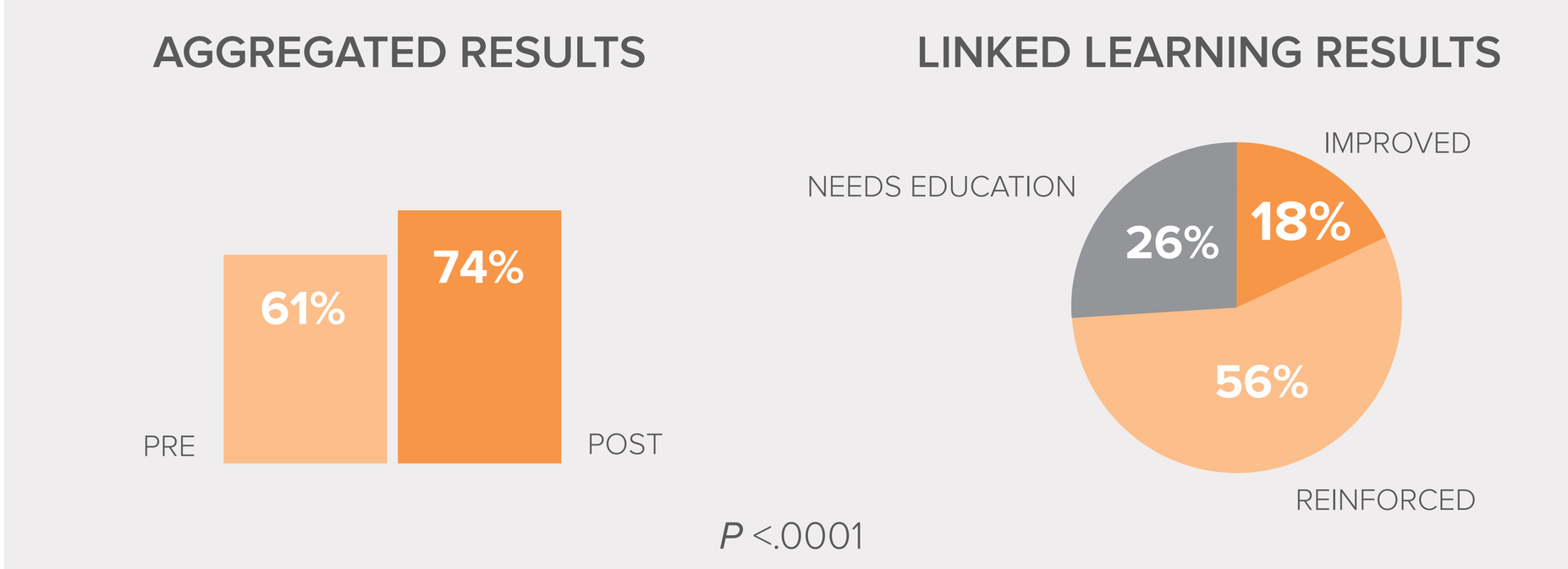
Variable pre-existing knowledge of clinical trial outcomes for antipsychotic therapies. Exposure to CME results in signficant knowledge gains on clinical trial outcomes.

Program 1: Psychiatrists (n = 1,105)



A pivotal phase 3 clinical trial is ongoing with roluperidone (5-hydroxytryptamine [5-HT] 2A, sigma 2, and α1-adrenergic receptor antagonist) as monotherapy in patients with schizophrenia. This study is informed by the results of a phase 2b clinical study of roluperidone monotherapy that demonstrated improvement in which schizophrenia symptoms? (Correct Answer: Negative symptoms)

Program 2: Psychiatrists (n = 707)

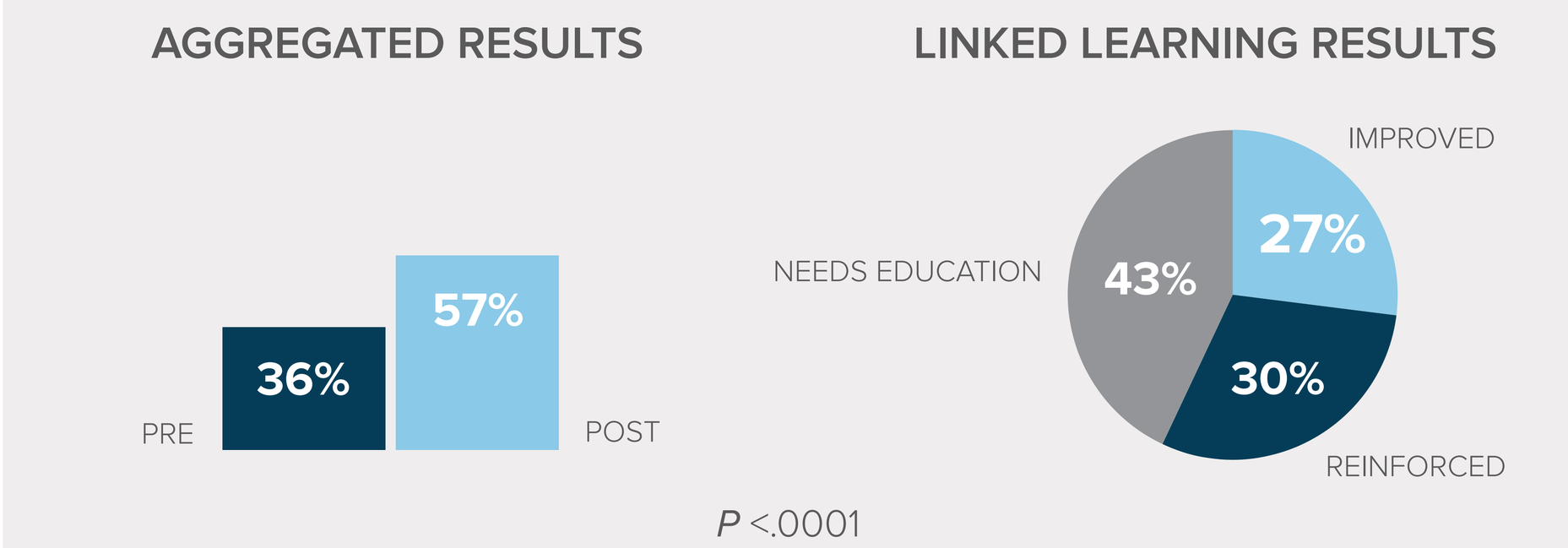


A double-blind, phase 3b trial enrolled adults aged 18 to 65 years with long-term (> 2 year), stable schizophrenia and randomized them to either fixed dose of oral cariprazine (3 mg, 4.5 mg [target dose], or 6 mg per day) or risperidone (3 mg, 4 mg [target dose], or 6 mg per day) for 26 weeks. What were the outcomes of cariprazine treatment vs risperidone? (Correct Answer: Significantly more improvement in negative symptoms)

NOVEL THERAPIES DESIGNED TO ADDRESS APM ADVERSE EVENTS

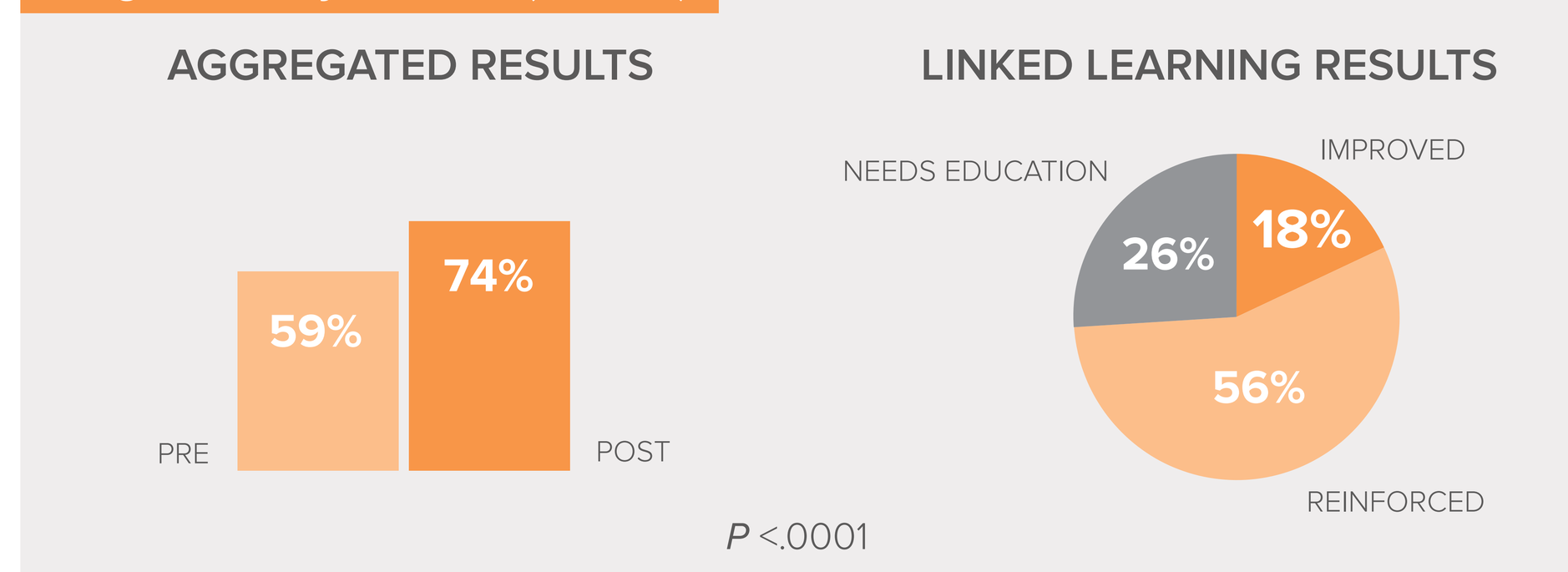
Baseline awareness of the effect of ALKS-3831 on weight gain improved over time. Exposure to CME was successful at improving awareness of the impact of ALKS-3831 on weight gain across both years.

Program 1: Psychiatrists (n = 1,105)



What combination treatment currently under development is designed to mitigate the weight gain induced by olanzapine alone in patients with schizophrenia? (Correct Answer: ALKS 3831)

Program 2: Psychiatrists (n = 707)

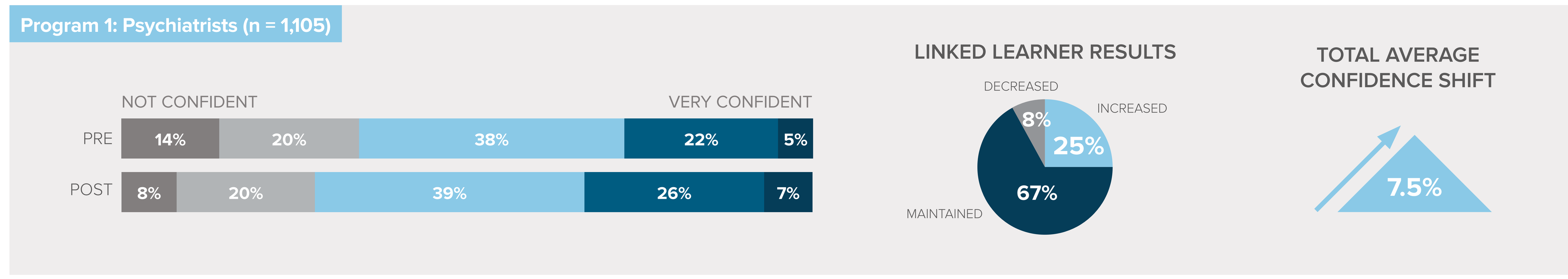


ALKS-3831 is formulated as a combination of samidorphan and olanzapine. Adding a Mu-opioid receptor antagonist (samidorphan) to a central nervous system (CNS)-active drug (olanzapine) is aiming to mitigate which adverse event while maintaining the antipsychotic effects? (Correct Answer: Weight gain)

CONFIDENCE IN THE ABILITY TO IDENTIFY AND ADDRESS NEGATIVE CONSEQUENCES OF APMS

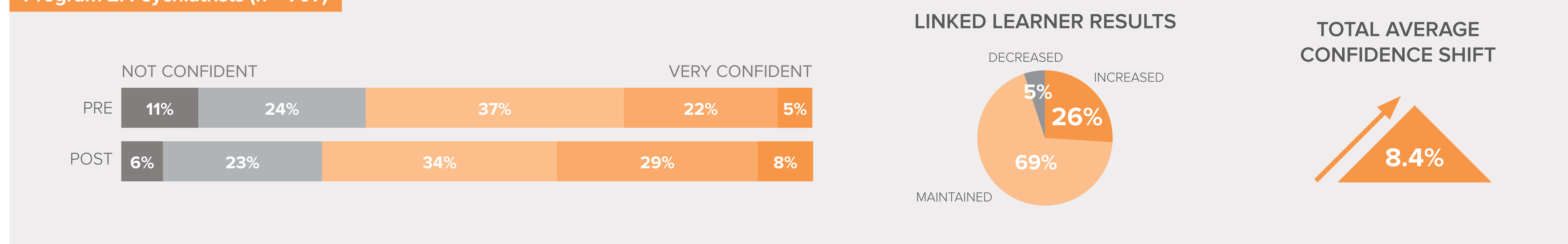
Low pre-education confidence for the identification of why individual patients are non-adherent to their APM and the management of APM-related adverse events improved following exposure to CME.

Program 1: Psychiatrists (n = 1,105)



How confident are you right now in your ability to identify the reasons your patients with schizophrenia stop adhering to their therapy? (Select ranking from 1 [Not confident] to 5 [Very confident])

Program 2: Psychiatrists (n = 707)



How confident are you right now in your ability to manage the treatmentrelated adverse events of your schizophrenia patients? (Select ranking from 1 [Not confident] to 5 [Very confident])

CONCLUSIONS

Across 2 successive years, online video-recorded faculty panel discussions were successful in improving knowledge and competence of psychiatrists on the following key concepts:

- **Mechanism of action of more recently approved APMs**
- **Impact of more recently approved APM on key adverse events associated with established APMs**
- **Clinical trial outcomes for newer APMs**
- **Identification of a patient who is an appropriate candidate for a long-acting injectable (LAI) APMs**

Participation in either program resulted in significant improvements in confidence regarding factors involved in optimizing outcomes for the use of APMs. As new APMs with novel mechanisms move through clinical development, future education should continue to address such developments.

ACKNOWLEDGEMENTS

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For more information, contact Thomas Finnegan, PhD, Director, Clinical Strategy, *tfinnegan@medscape.net.*

REFERENCES

1. National Institute of Mental Health (NIMH). Schizophrenia. May 2020. Accessed March 22, 2022. https://www.nimh.nih.gov/health/topics/schizophrenia
2. Citrome L. A review of the pharmacology, efficacy and tolerability of recently approved and upcoming oral antipsychotics: an evidence-based medicine approach. CNS Drugs. 2013;27:879-911.
3. Misdrahi D, Tessier A, Husky M, et al. Evaluation of adherence patterns in schizophrenia using electronic monitoring (MEMS®): a six-month post-discharge prospective study. Schizophr Res. 2018;193:114-118.
4. Velligan DI, Sajatovic M, Hatch A, Kramata P, Docherty JP. Why do psychiatric patients stop antipsychotic medication? A systematic review of reasons for nonadherence to medication in patients with serious mental illness. Patient Prefer Adherence. 2017;11:449-468.
5. Tamminga C. Assess your schizophrenia knowledge: are you up to speed with new developments? Medscape Education Outcomes Report. Data on File. February 2018.
6. Medscape Education Survey. Schizophrenia Survey. Data on file. 2018. Accessed June 8, 2018.
7. Correll C, Citrome L. New Data, New opportunities in treating patients with schizophrenia. December 2019. Accessed March 22, 2022. https://www.medscape.org/viewarticle/923017
8. McIntyre R, Vanderhoef D, Kane J. Schizophrenia Journal Club: what does the new research show? January 2020. Accessed March 22, 2022. https://www.medscape.org/viewarticle/924375

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