



CHILDREN'S
HOSPITAL OF RICHMOND AT **VCU**

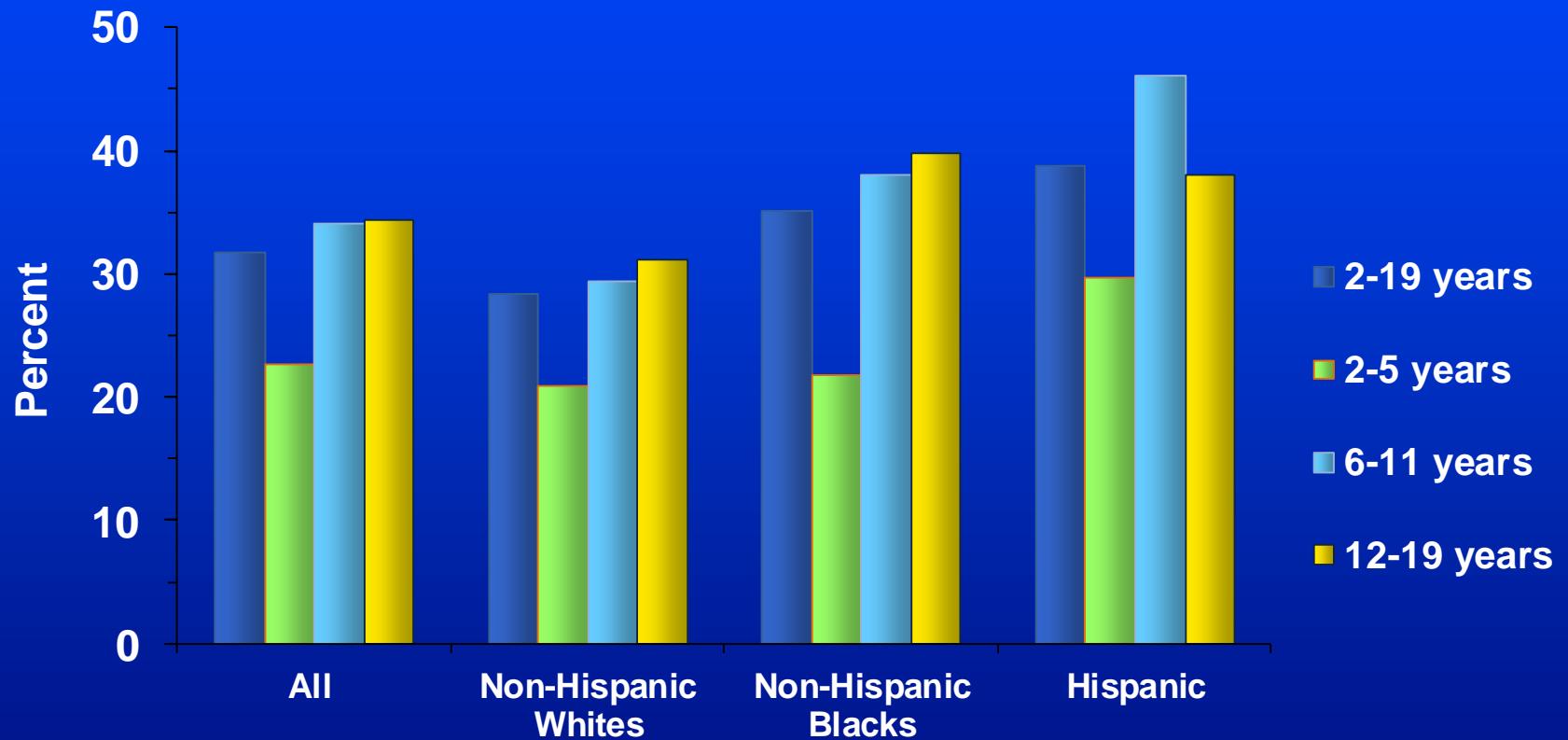
Impact of motivational interviewing on attrition in a parent-exclusive pediatric obesity intervention

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Prevalence of Overweight in Children

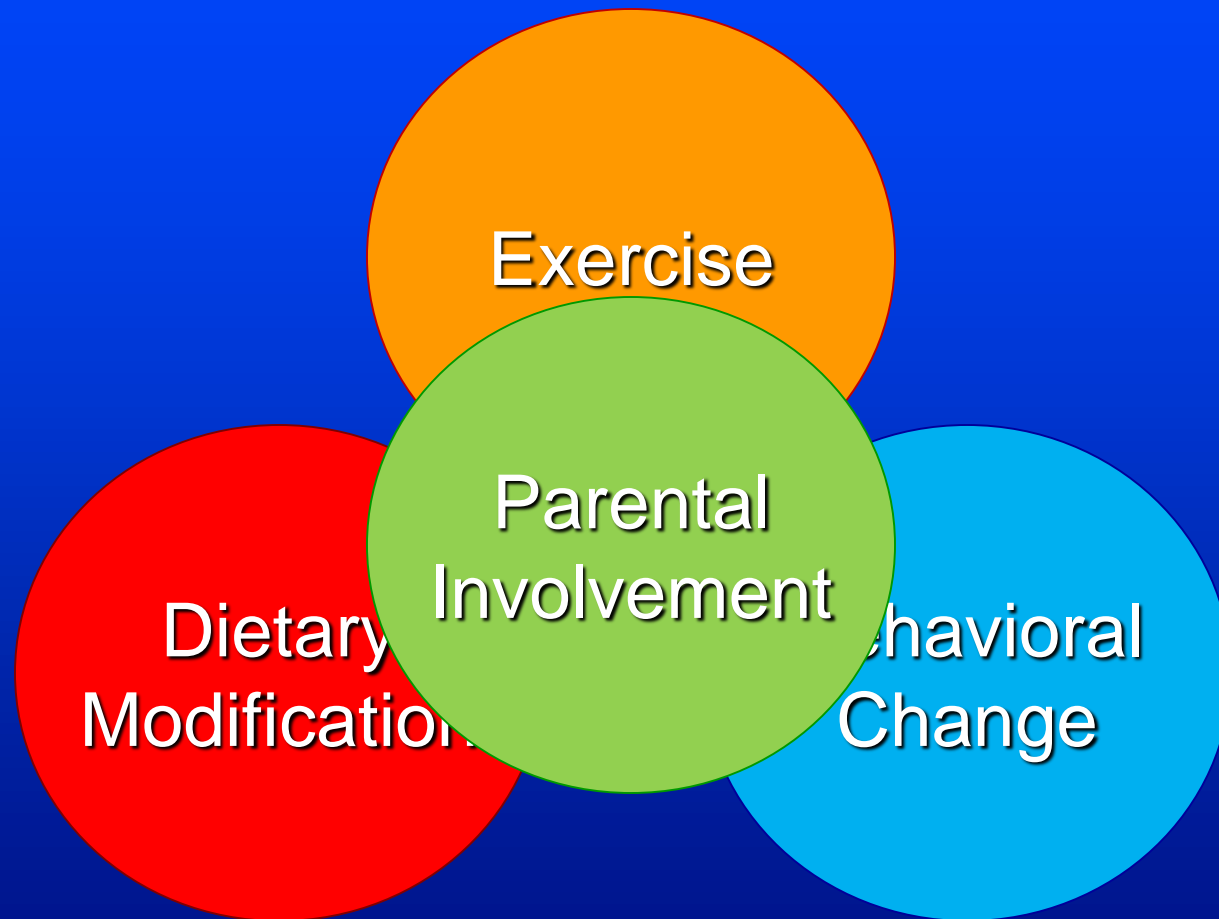
NHANES 2011-2012



BMI for Age \geq 85th Percentile

Ogden et al. *JAMA*. 2014;311:806-14.

Pediatric Weight Management



Exclusively Target Parents



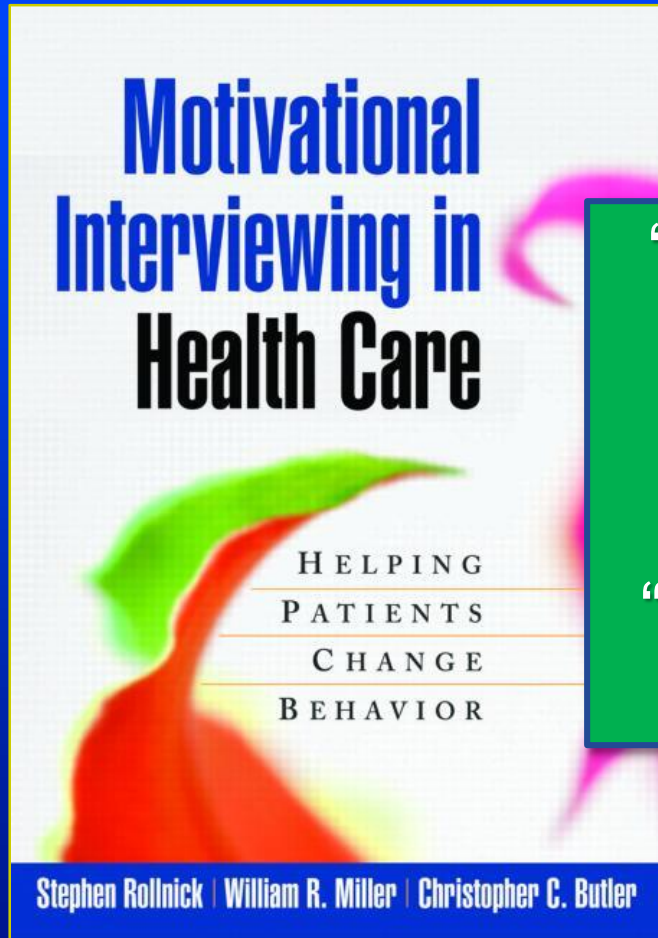
Parental
Involvement

Treatment Adherence and Attrition

- Low retention and treatment adherence are notorious challenges in obesity treatment
 - attrition up to 73% (Skelton & Beech, 2010)
- Factors associated with higher attrition / lower adherence
 - Higher BMI Z-scores, African American, Eligibility for Medicaid

Culturally sensitive intervention
Easily accessible location
Incentives for participation
Frequent contact

Motivational Interviewing (MI)

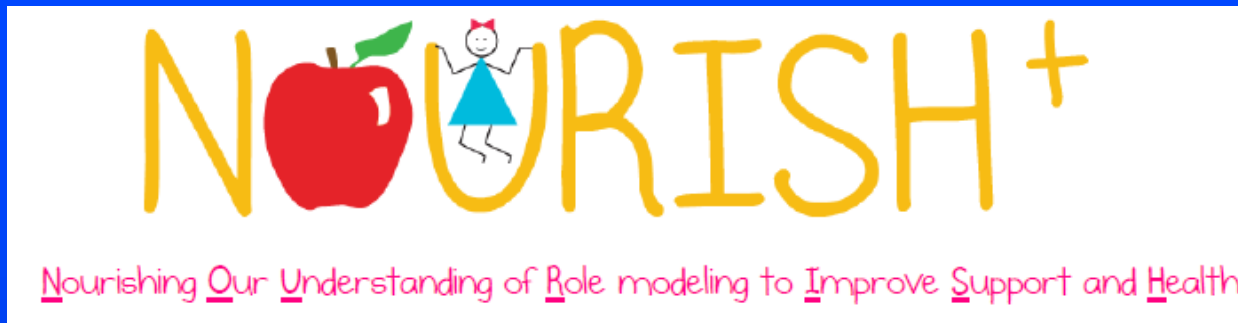


“A collaborative conversation style for strengthening a person’s own motivation and commitment to change”

“MI explores and resolves **normal ambivalence** about change”

Ambivalence: simultaneously feeling two ways about change





- Randomized controlled trial
- Targets parents (N=400) of overweight children (ages 5-11 yrs; BMI \geq 85th percentile)
- Culturally tailored for lower income, African American caregivers
- 6-session group-based treatment, based on Social Cognitive Theory

The Current Study Aims

Pilot a brief MI intervention as an adjunct to the larger trial of NOURISH⁺; examine impact of NOURISH+MI on:

- Retention
- Treatment adherence (session attendance)

NOURISH+MI: Pre-Treatment

- Parents engage in 2 sessions of MI **before** participation in NOURISH+, at key points of high attrition:
 - Explore and resolve ambivalence about participation / change
 - Elicit change talk via exploration of reasons for NOURISH+ participation

Eligible after telephone screen and
randomized to Main Trial or NOURISH+MI
 $N = 326$

NOURISH+MI
 $n = 112$

Main Trial (R01)
 $n = 214$

Telephone

MI session 1

Reminder Call

Baseline

Baseline

In-person

MI session 2

Reminder Call

8 waves

NOURISH+

NOURISH+

Control

Post-Test

Post-Test

Post-Test

4-mo Follow up

4-mo Follow up

4-mo Follow up

An MI Approach to Change

“What concerns you about your child’s weight?”

“Despite all you are doing, your doctor is still concerned. You’re hoping NOURISH+ will help.”

“What would things be like for your child if you were (were not) successful with these changes?”

“You want to do what’s best for your family but it’s not always easy.”

“For you, the time is right to enroll in NOURISH+ and help get your child on the right track. This is a decision that feels good.”

Create Dissonance

- When values and goals conflict with present behavior → feel uncomfortable



- Help parents become aware of the difference between where they are and where they want to be

Table 1. Baseline Characteristics by Treatment Condition

Variable	NOURISH+MI M (SD) or %	NOURISH+ M (SD) or %	Control M (SD) or %	p
Female (%)				
Child	52%	67%	51%	.14
Parent	91%	97%	88%	.18
African American (%)				
Child	55%	63%	63%	.58
Parent	52%	63%	64%	.71
Age (years)				
Child	9.5 (1.9)	9.4 (1.9)	9.0 (2.2)	.06
Parent	40.7 (10.2)	40.2 (7.9)	38.5 (7.2)	.36
Child BMI Percentile	96.1 (5.8)	96.6 (4.5)	95.3 (6.2)	.11
Parent BMI (kg/m ²)	35.8 (10.1)	35.9 (11.6)	33.7 (1.01)	.46
Family Income				
≤ \$35,000 / year	36%	37%	48%	.03
\$35,000-74,999 / year	25%	21%	14%	
≥ \$75,000 / year	39%	43%	38%	

Table 2. Motivational Interviewing Fidelity Compared with Recommended Proficiencies using the MITI 3.1

MITI Domain	Mean Rating Session 1 (Telephone) <i>n</i> = 88	Mean Rating Session 2 (In-Person) <i>n</i> = 57	MITI 3.1 Recommended Proficiencies
Global Spirit	4.6	4.6	4
Reflection : Question	1.6	3.4	2.0
% Complex Reflections	91.0%	94.2%	50%
% Open Questions	73.2%	79.4%	70%
% MI Adherent	100	100	100%

ICC's 0.62-1.0 across domains

Results:

Figure 1. Retention from Screening to Baseline

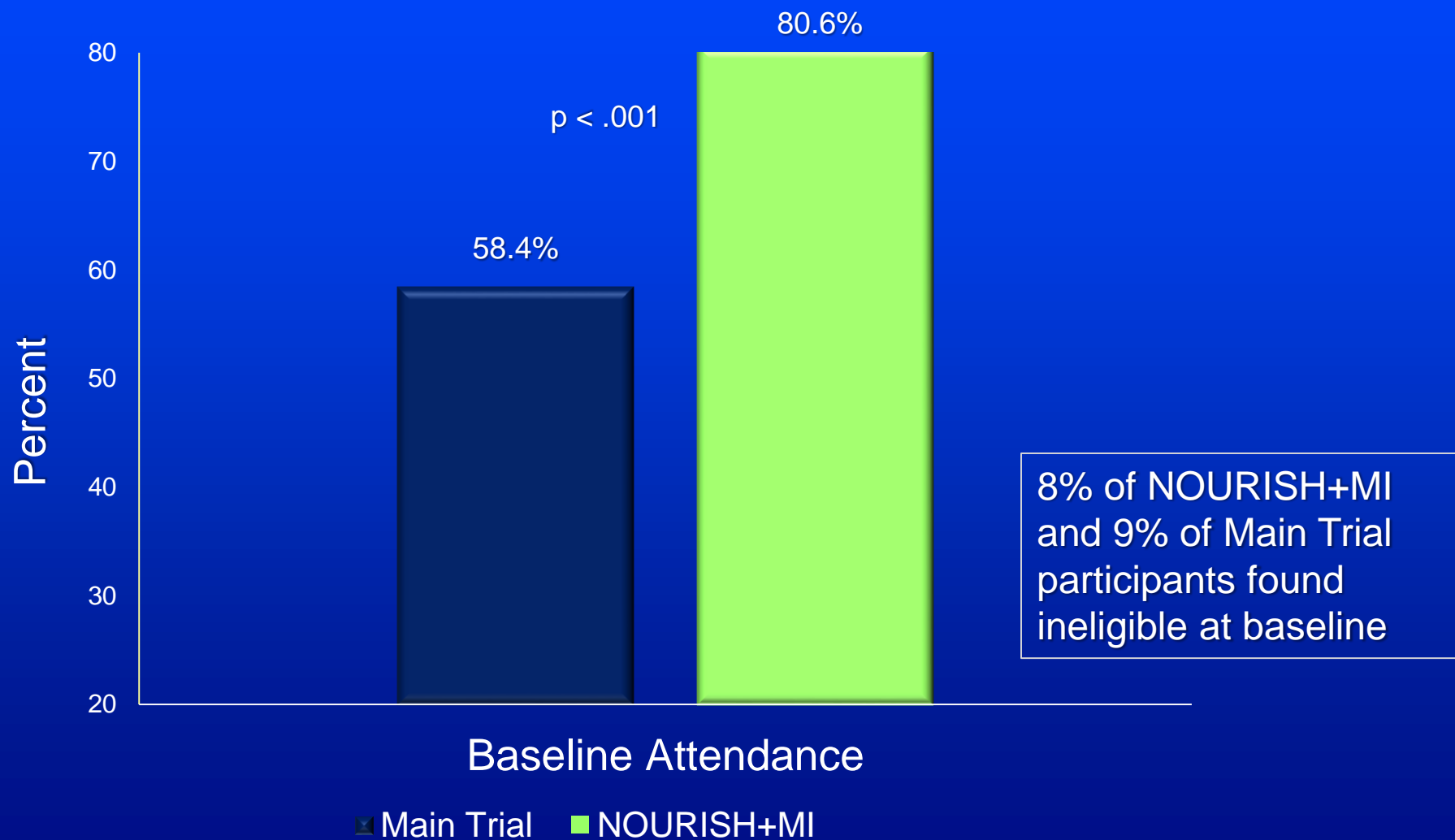


Figure 2. Retention from Baseline to NOURISH+

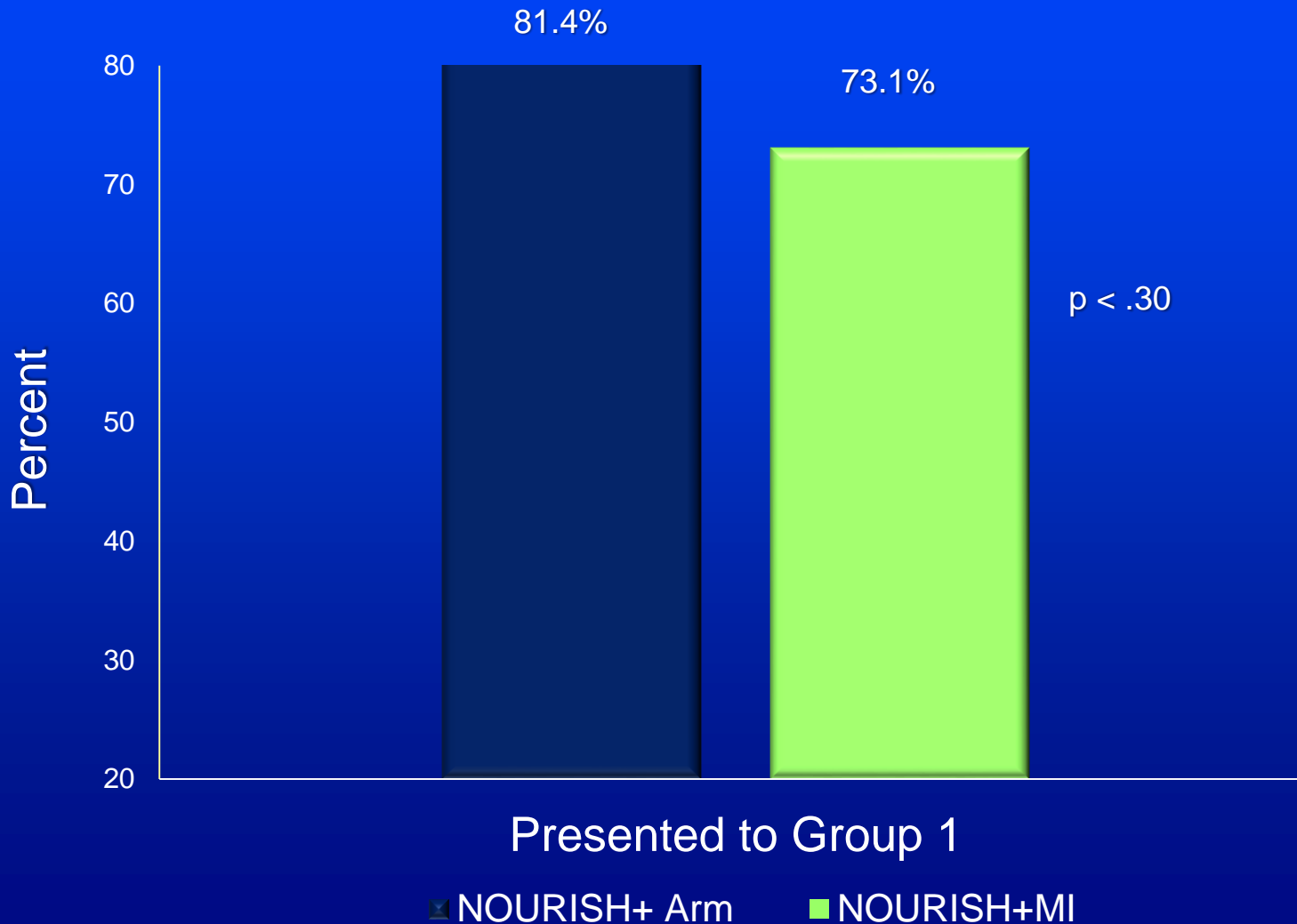


Figure 2. Retention from Baseline to NOURISH+

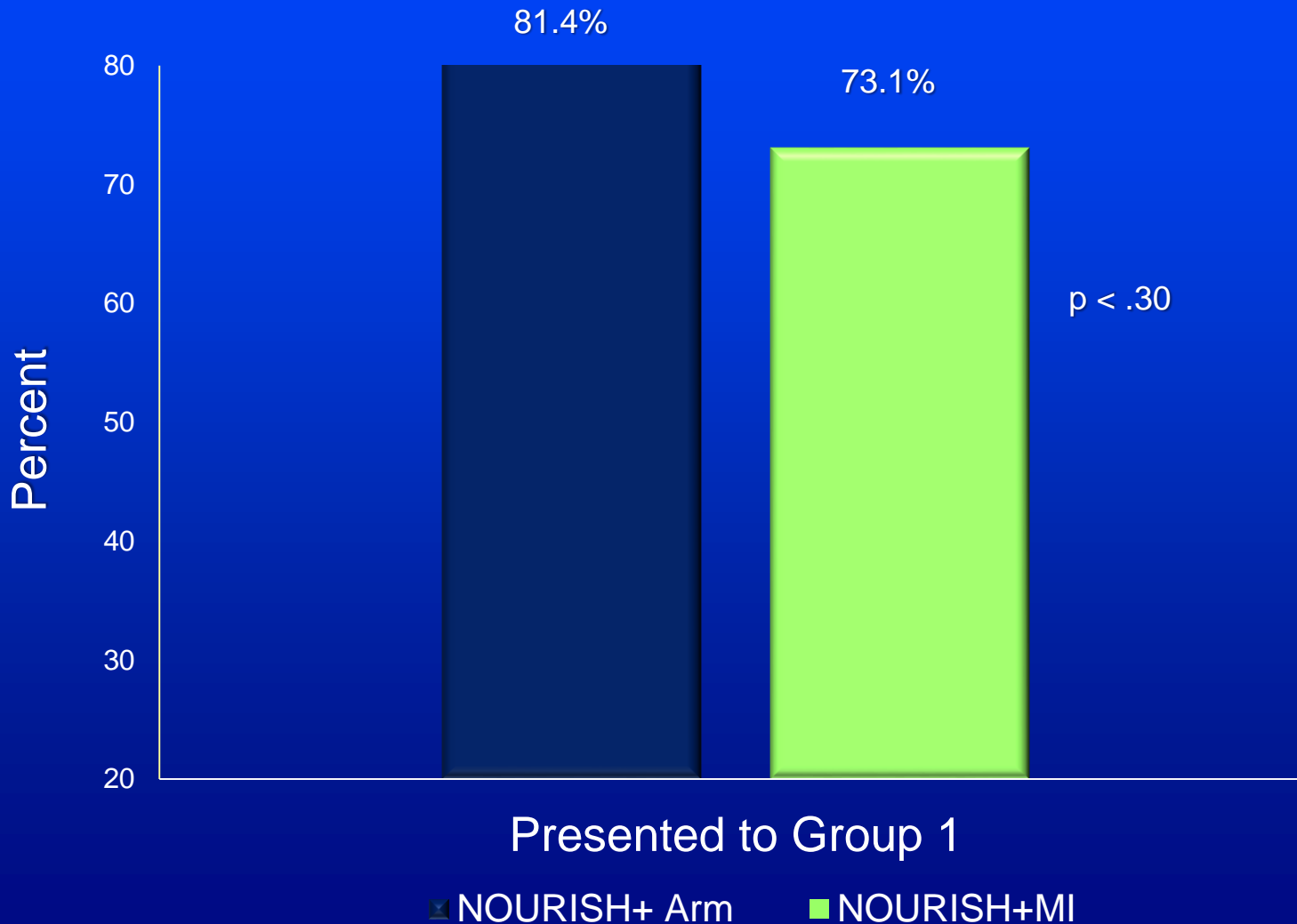


Figure 3. Treatment Adherence between Groups

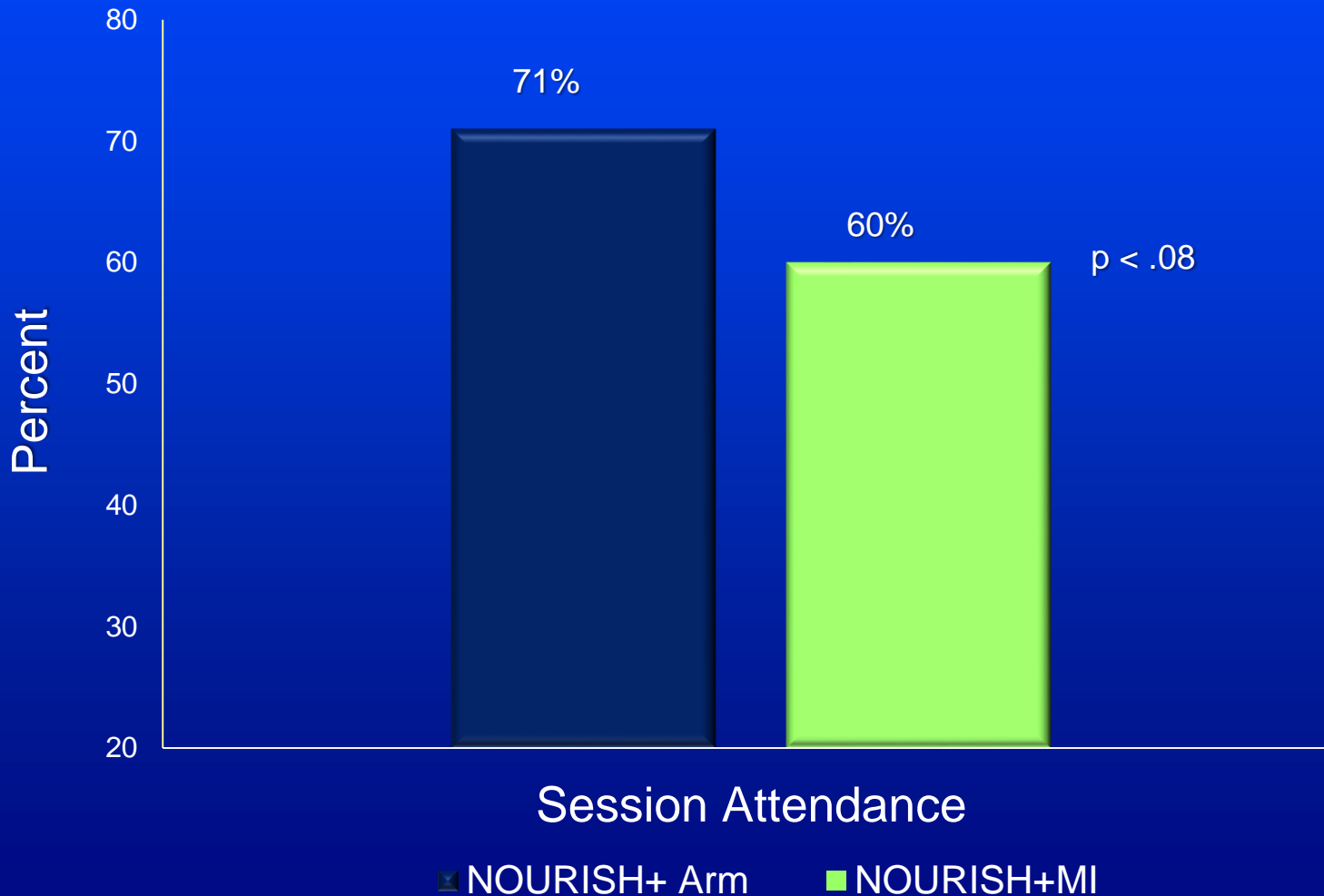
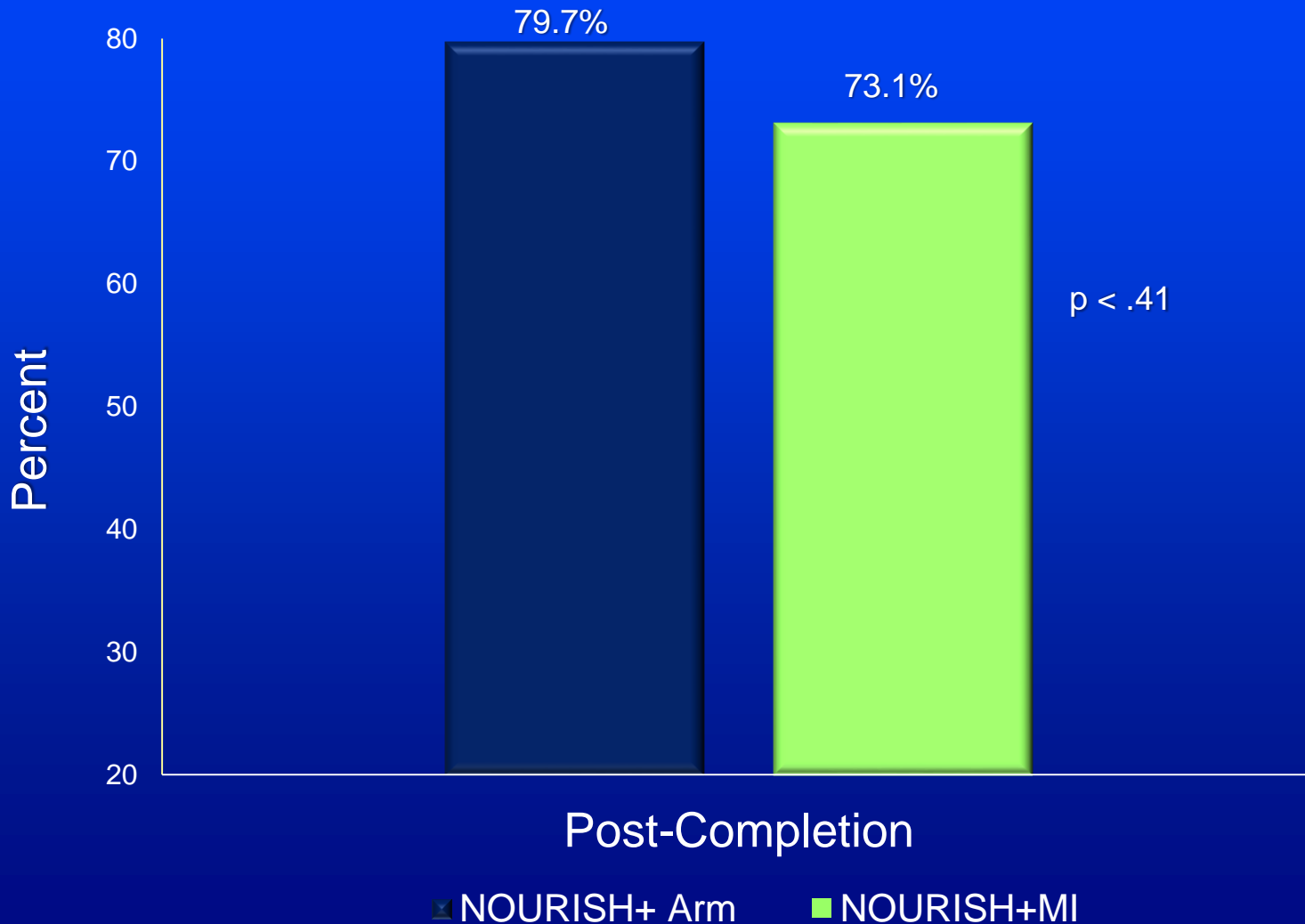


Figure 4. Post-test completion by Treatment Arm



Discussion

- Significant costs to recruit participants into obesity trials.
- A single MI session over the telephone significantly enhanced recruitment efforts via greater baseline attendance after telephone screening.
- No enhanced effects with doubling the dose; effects do not carryover once treatment starts.
- Particularly notable given vulnerable population at high attrition risk.

Limitations and Strengths

- Contact differed between arms
 - ~20 min / MI session
- Baseline occurred after MI session 1
- Rigorous treatment fidelity demonstrated
- Targets a population at high obesity and high attrition risk

MI might be a cost and time-effective strategy to address retention early in treatment, a point of high attrition in RCTs.

Future Directions

- Did MI retain participants who were more ambivalent?
 - Booster MI session later in treatment
 - Integrate MI into NOURISH+
- Given these findings, implement MI as part of the telephone screen / initial contact

Acknowledgements

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 - Carrie Bair, Laura Caccavale, Autumn Lanoye, Katy Maher, Nadia Islam

HEALTHY LIFESTYLES CENTER



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