
Motivational Interviewing Education for Providers to Address Adolescent Nutrition

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DNP Scholarly Project Defense

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Introduction

- **Virginia adolescent obesity rates increasing** (DRCCAH, 2021)
- **70% will still be obese after age 30** (Simmonds et al., 2016)
- **Financial impact** (CDC, 2022)
- **Literature supports Motivational Interviewing (MI)**
(Ball et al., 2011), (Kong et al., 2013), (Resnicow et al., 2015)
- **AAP Clinical Practice Guideline** (Hampl et al., 2023)



<https://www.pennmedicine.org/news/news-blog/2016/september/battling-adolescent-obesity-wi>

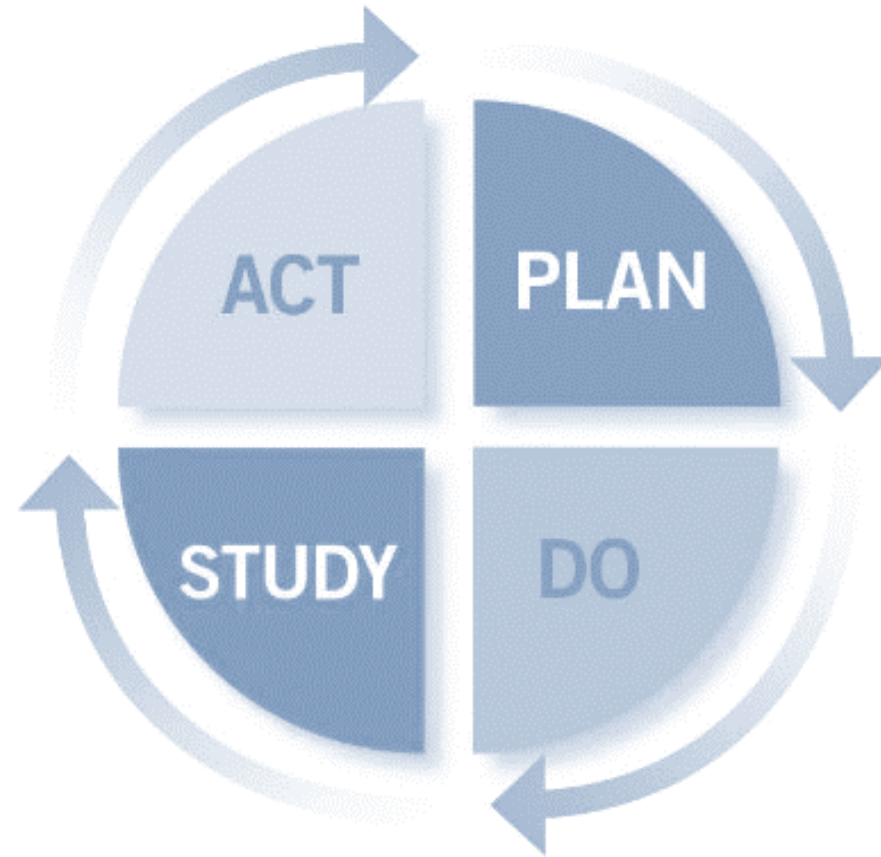
Barriers

- **Limited appointment time** (Yarborough et al., 2012)
- **Sensitivity of weight-related discussions**
(Yarborough et al., 2012)
- **Concern that conversations will lead to adolescent eating disorders** (Yarborough et al., 2012)
- **Barrier to MI: typical MI training is lengthy and requires follow-up** (Brown, 2021), (Schwalbe et al., 2014)

Change Talk: Childhood Obesity

- “Interactive role-play simulation for health professionals that builds their [MI] skills to lead real-life conversations with patients and their children about healthy weight and childhood obesity” AAP (2022)
- Online program/mobile app developed by AAP Institute for Healthy Childhood Weight and Kognito©
- 30 min - 1 hour to complete

Implementation Framework



Plan-Do-Study-Act

(Institute for Healthcare Improvement, 2022)



Purpose

To implement the
Change Talk: Childhood Obesity
motivational interviewing training to
increase provider self-reported
knowledge and use of MI to address
adolescent nutrition and
weight management

Definition of Terms



- **Adolescent**
12 - 17 years of age
- **Motivational Interviewing Clinician Self-Assessment Report (MICSAR)**
13-question survey for clinicians to self-rate MI skills

PLAN



- **Who**

- My Team
- Participants in QI Project:
 - Pediatric Practice APPs
 - NPs in Virginia



- **What**

- Change Talk: Childhood Obesity

PLAN, cont.



- **When:**
 - Dec. 2022 - March 2023
- **Where:**
 - NOVA Pediatric Practice
 - NPs in VA
- **Plan to Collect:**
 - APP demographics
 - MI education
 - Barriers
 - Practice Questions
 - MICSAR scores
 - Post-survey
 - Recommendation

Institutional Review Board



- Does not meet criteria for Research with Human Subjects
- Does not require IRB Review
- No electronically saved identification data
- Data in SPSS and Excel de-identified

DO



- **Carry out intervention**

- Practice mentor → in-clinic invitation and emails
- Informational emails → Qualtrics survey → Change Talk → post-survey



<https://ehrintelligence.com/features/what-clinical-quality-measures-mean-to-healthcare-providers>

- **Problems and observations**

- Email communication
- Survey timing
- Costly

- **Collect Data**

- Planned data
- Qualtrics
- Excel & SPSS

STUDY - Analyze Data



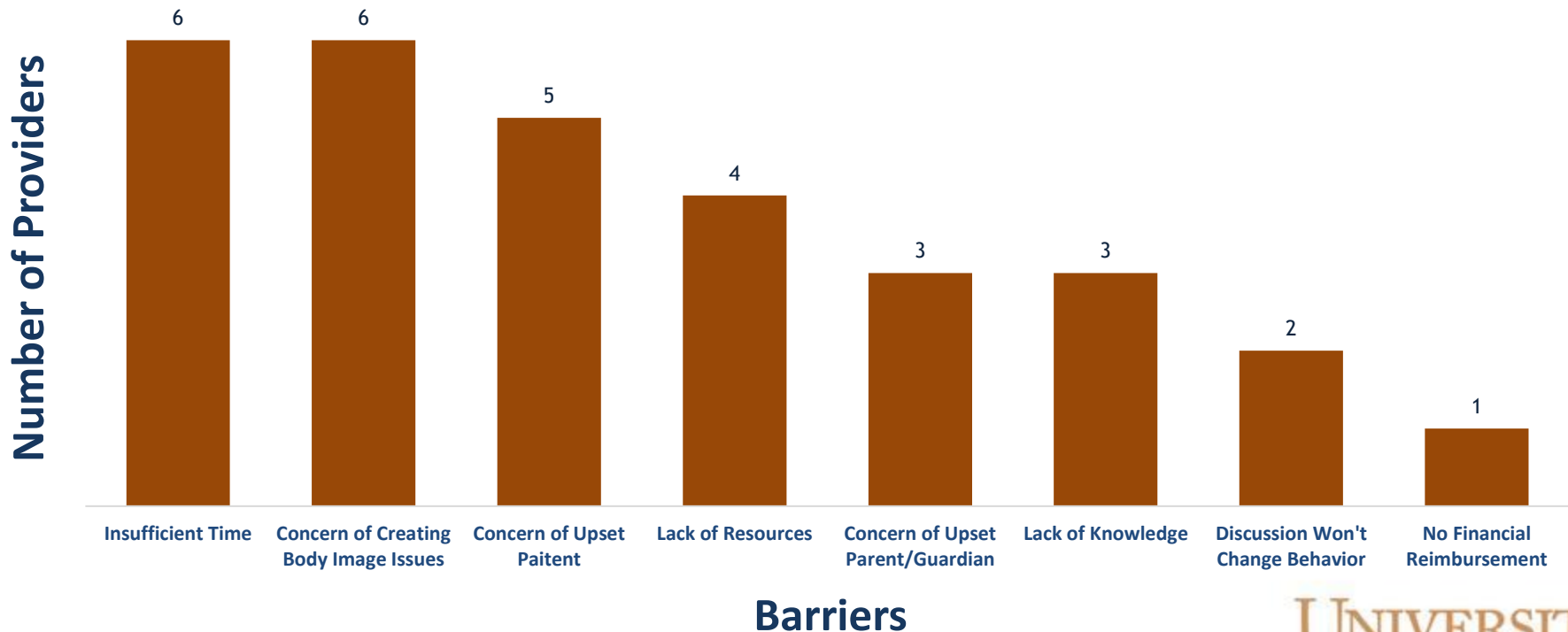
Demographics 6 Participants

- **APPs:**
 - 2 FNPs, 2 PNP, 2 PAs
- **Experience:**
 - < 10 years
- **Practice setting:**
 - 4 in pediatrics
 - 1 in family
 - 1 in Urgent Care
- **Previous MI Education:**
 - 50% with formal education

Analyze Data, Cont.



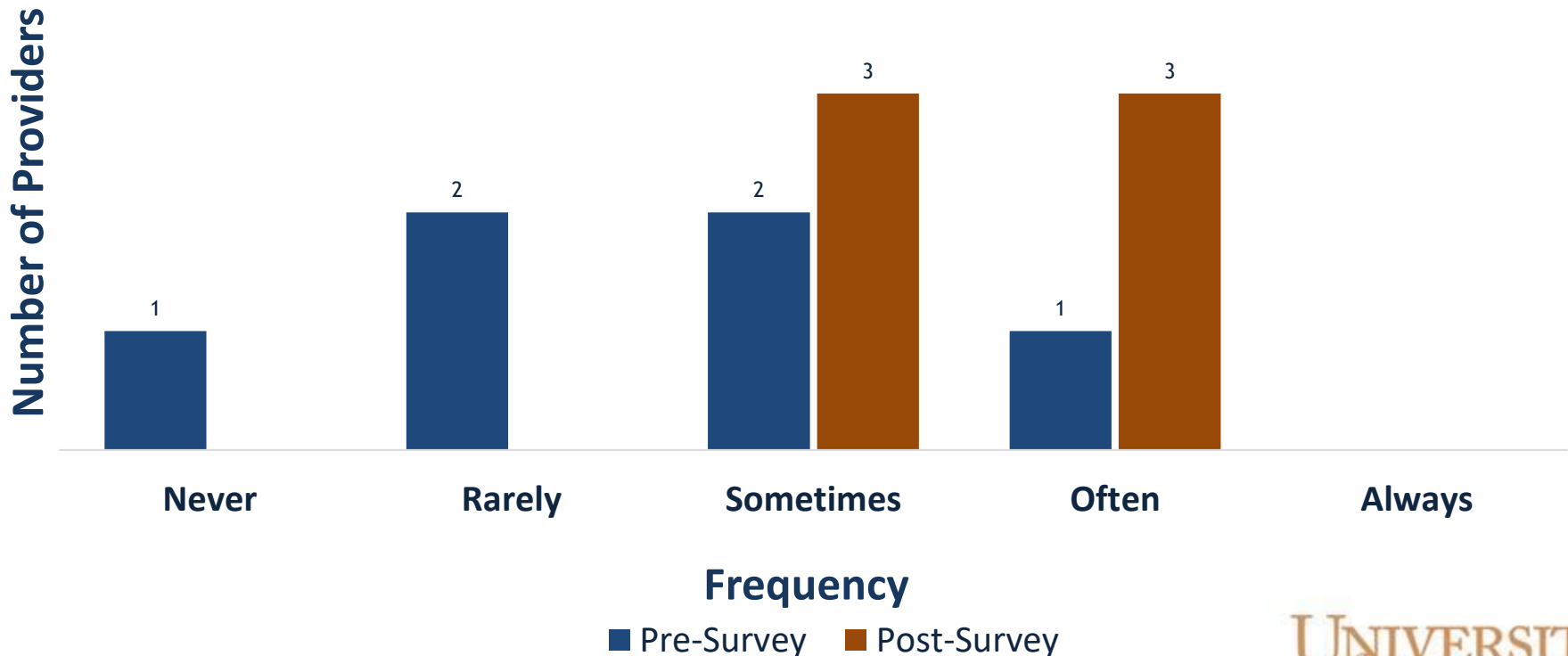
Barriers to Addressing Adolescent Nutrition and Weight



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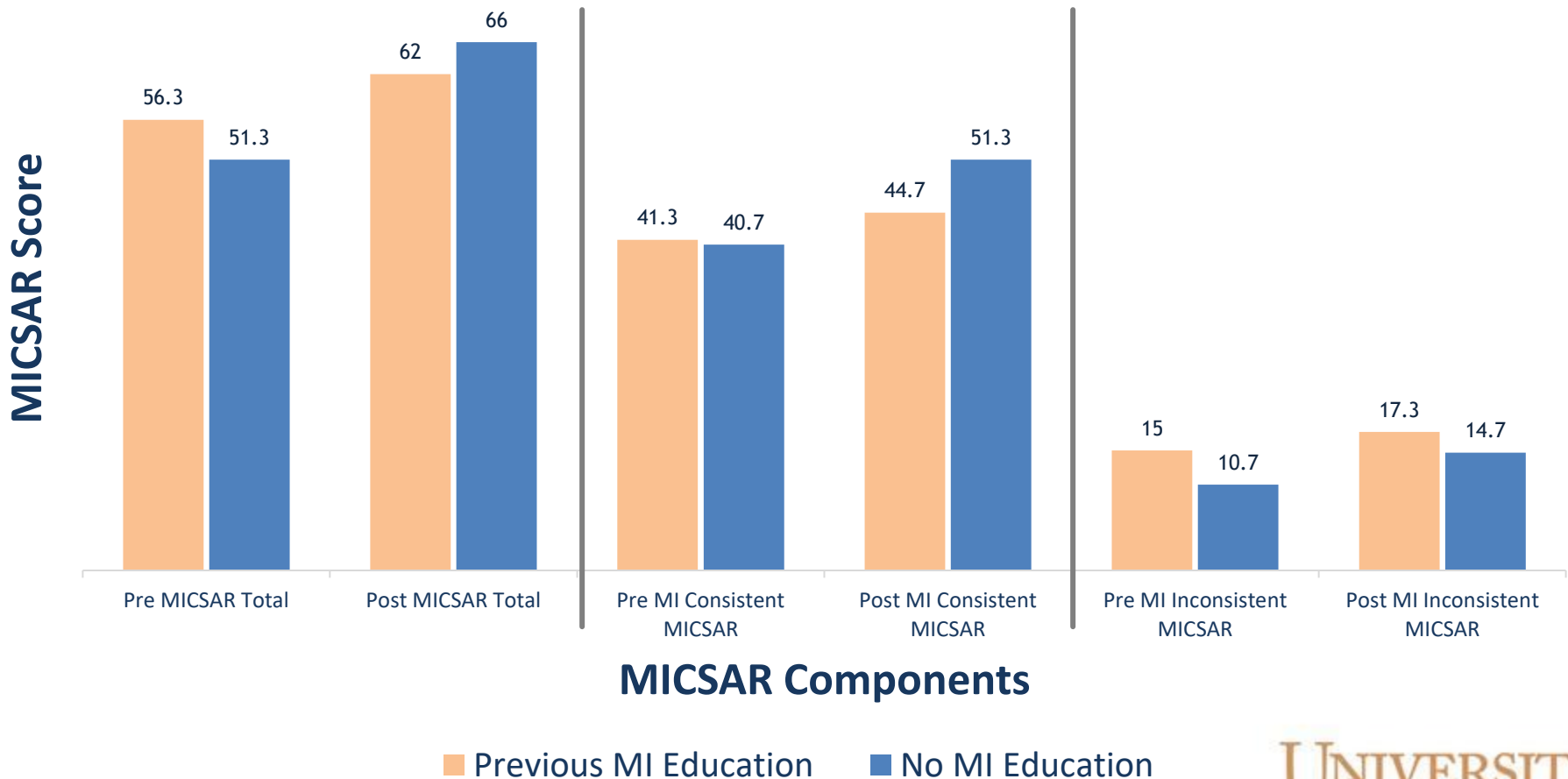
Frequency of Asking Permission Prior to Weight-Related Discussions



Analyze Data, Cont.



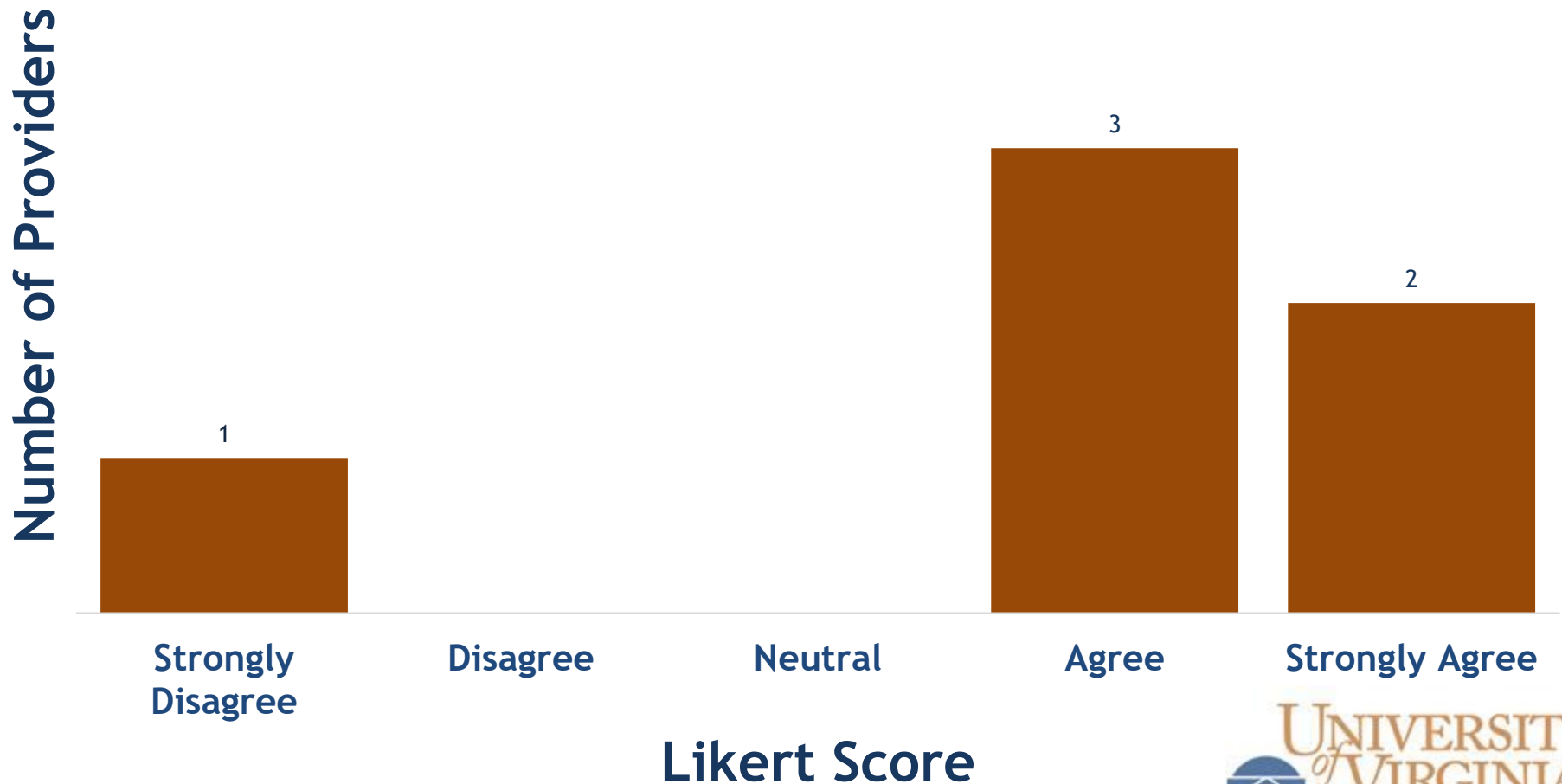
Previous MI Education and MICSAR Scores



Analyze Data, Cont.



Change Talk Increased MI Knowledge

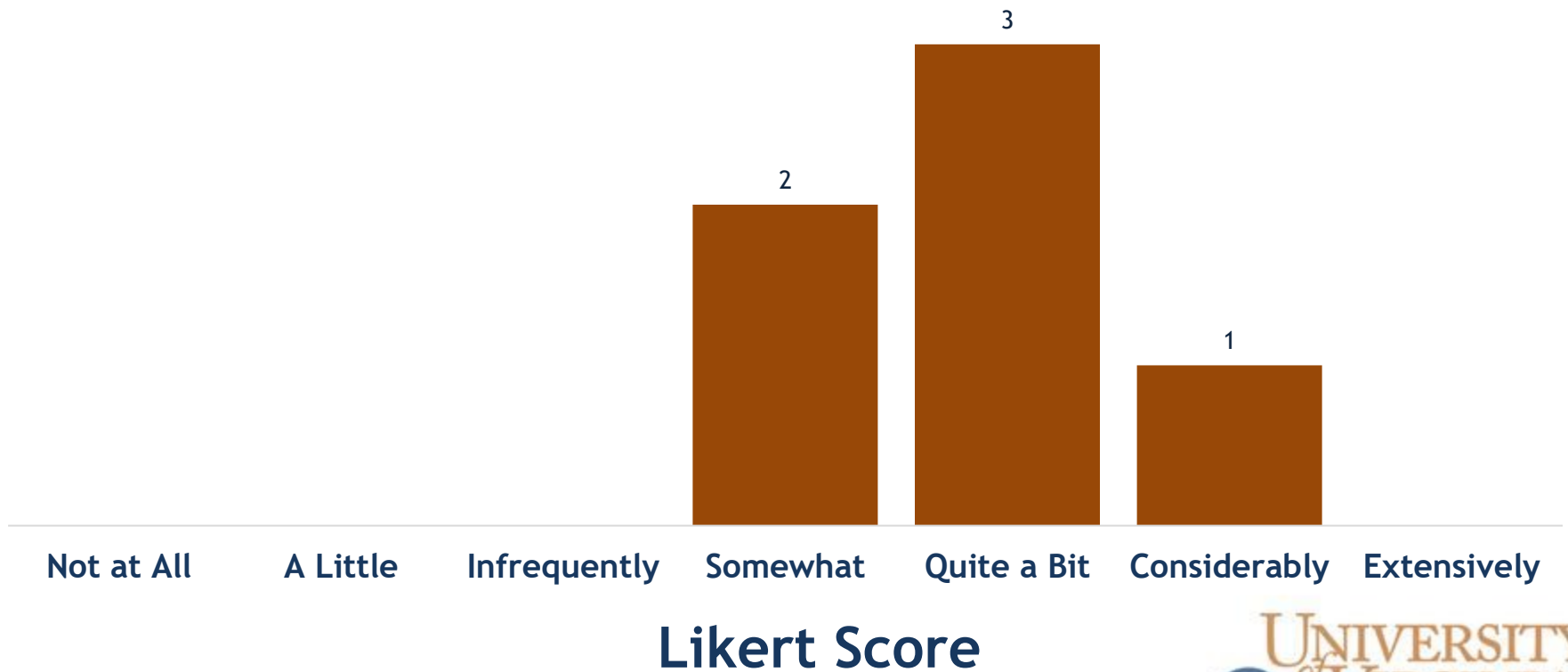


Analyze Data, Cont.



Change Talk Increased Use of MI

Number of Providers





Summarized Findings

Strengths & Limitations

Strengths



- Bridges evidence to practice
- Increase preventative strategies
- Decreased NP time burden
- Diversity, equity, and inclusion
- Ethics
- Financial analysis

Diversity, Equity, Inclusion



- **Diversity:** disparities exist across races, incomes, and ethnicities - this intervention can be applied across all types of communities
- **Equity:** provider does not require many resources to participate in intervention. Patient needs access to provider, otherwise economic status does not hinder intervention
- **Inclusion:** intervention can have wide outreach to different provider locations and subpopulations

Ethical Considerations



- Balances beneficence and patient autonomy
- No risk of maleficence to participants
- Risk of patient discomfort



<https://biztimes.com/business-ethics-2/>

Financial Analysis



- **Change Talk program is free**
- **Savings**
 - Full MI training programs cost \$100 - \$500
 - Providers miss work and potentially not receive pay to attend MI training
 - If intervention leads to sustainable change → decreased medical expenses and productivity costs related to obesity

Limitations



- No singular site for QI implementation
- Time
- Lack of continued MI follow-up
- Health outcomes not collected

Summarized Findings



Strengths of QI project are more relevant as project grows in scale. Limitations mostly due to time and site restrictions.

Both offer insight for the next PDSA cycle.

Change Talk increased frequency of asking permission.

No prior MI education benefited more from Change Talk than former education group; both groups can improve in use of MI.

Change Talk produced a clinically significant improvement in both provider knowledge and use of MI.

ACT - Sustainability



- **Next Steps:**
 - Incorporate education for barriers
 - Adapt intervention to Teen Wellness Center
 - MI coaching and follow-up
 - Include baseline patient health measures
 - Adopt intervention
 - Professional development
 - Intro to MI in school
- Prepare plan for next PDSA cycle

Conclusion

Change Talk is an affordable and practical intervention to produce clinically significant increases in provider knowledge and use of MI for addressing nutrition and weight with adolescents.

Change Talk can be used as an introduction to MI.

MI education should be integrated into graduate programs and ambulatory care settings.

Dissemination Plan

- **Manuscript submissions**
 - Journal of Adolescent Health
- **Abstract submissions**
 - 2023 National DNP Conference (Virtual)
 - 2024 Conference of Adolescent Health
 - UVA Libra database



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**Thank you for your interest
and attendance.**

Questions?

APPENDIX

Participant Comments

- “I loved the course and found it very helpful!”
- “It was super helpful honestly because it showed me my deficits in asking for permission to discuss some of those concerns. I always discuss BMI and healthy lifestyle recommendations but had never asked permission to do so. It definitely helped me reframe my interview!”
- “I shared the mini course with my coworkers, which a few of them have done so far.”

MOTIVATIONAL INTERVIEWING CLINICIAN SELF-ASSESSMENT REPORT

INSTRUCTIONS: Listed below are a variety of Motivational Interviewing consistent and inconsistent skill areas. Please rate the degree to which you incorporated any of these strategies or techniques into your session with your client. Feel free to write comments below each item about any areas you want to discuss with your supervisor. For each item please rate your best estimate about how frequently you used the strategy using the definitions for each scale point.

| | | |
|---|--------------------|--|
| 1 | (NOT AT ALL) | Never used the strategy |
| 2 | (A LITTLE) | Used the strategy 1 time briefly |
| 3 | (INFREQUENTLY) .. | Used the strategy 2 times briefly |
| 4 | (SOMEWHAT) | Used the strategy 3-4 times briefly or once or twice extensively |
| 5 | (QUITE A BIT) ... | Used the strategy 5-6 times briefly or thrice extensively |
| 6 | (CONSIDERABLY) . | Used the strategy during more than half of the session |
| 7 | (EXTENSIVELY) | Use of the strategy almost the entire session |

MOTIVATIONAL INTERVIEWING CONSISTENT ITEMS

1. MOTIVATIONAL INTERVIEWING STYLE OR SPIRIT: To what extent did you provide low-key feedback, roll with resistance (e.g., avoiding arguments, shifting focus), and use a supportive, warm, non-judgmental, collaborative approach? To what extent did you convey empathic sensitivity through words and tone of voice, demonstrate genuine concern and an awareness of the client's experiences? To what extent did you follow the client's lead in discussions instead of structuring the discussion according to your agenda?

... 1 2 3 4 5 6 7
 NOT AT ALL A LITTLE INFREQUENTLY SOMEWHAT QUITE A BIT CONSIDERABLY EXTENSIVELY

Comments: _____

Analyze Data, Cont.



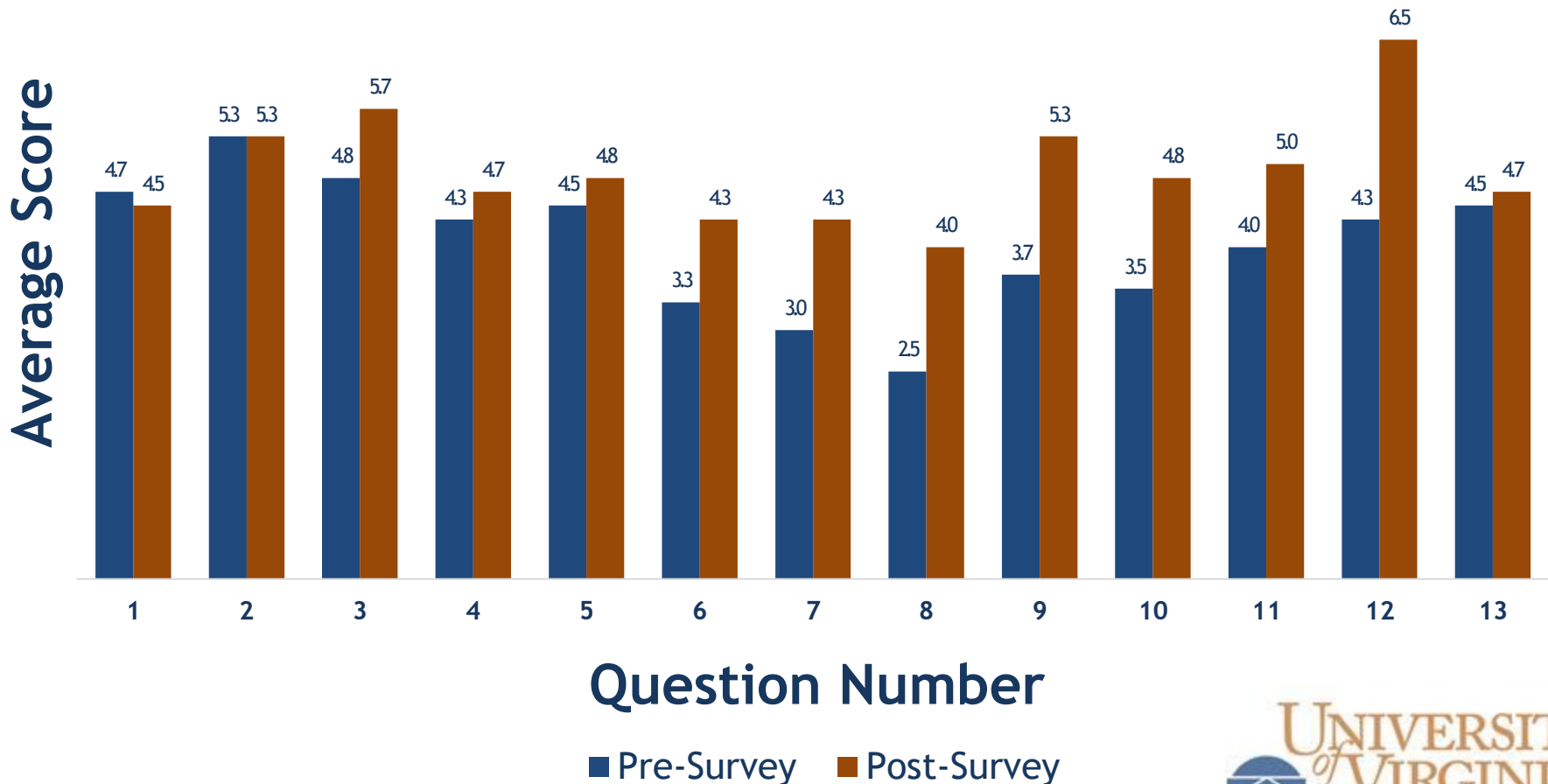
How Likely to Recommend Change Talk



Analyze Data, Cont.



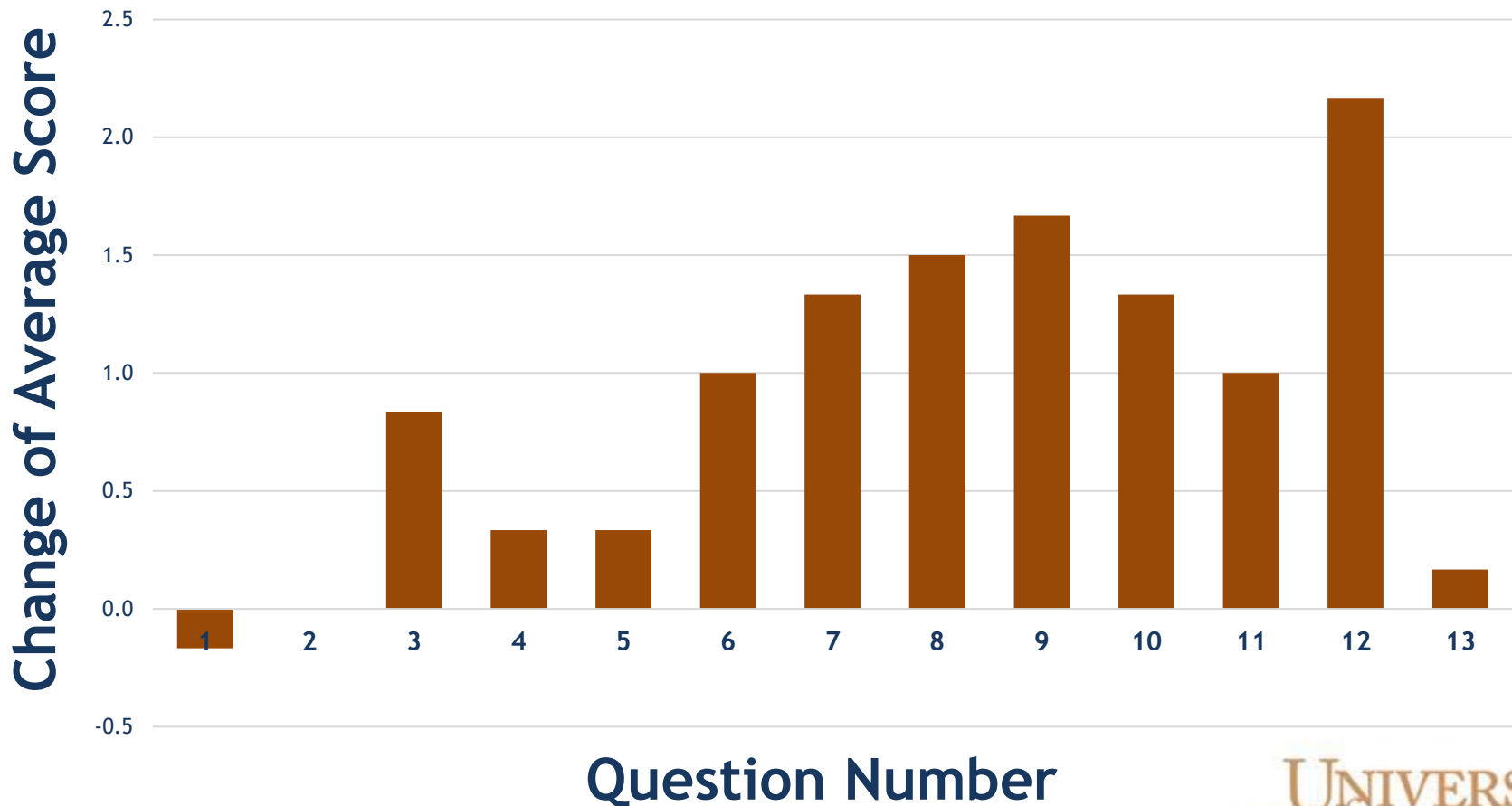
Average MICSAR Question Scores



Analyze Data, Cont.



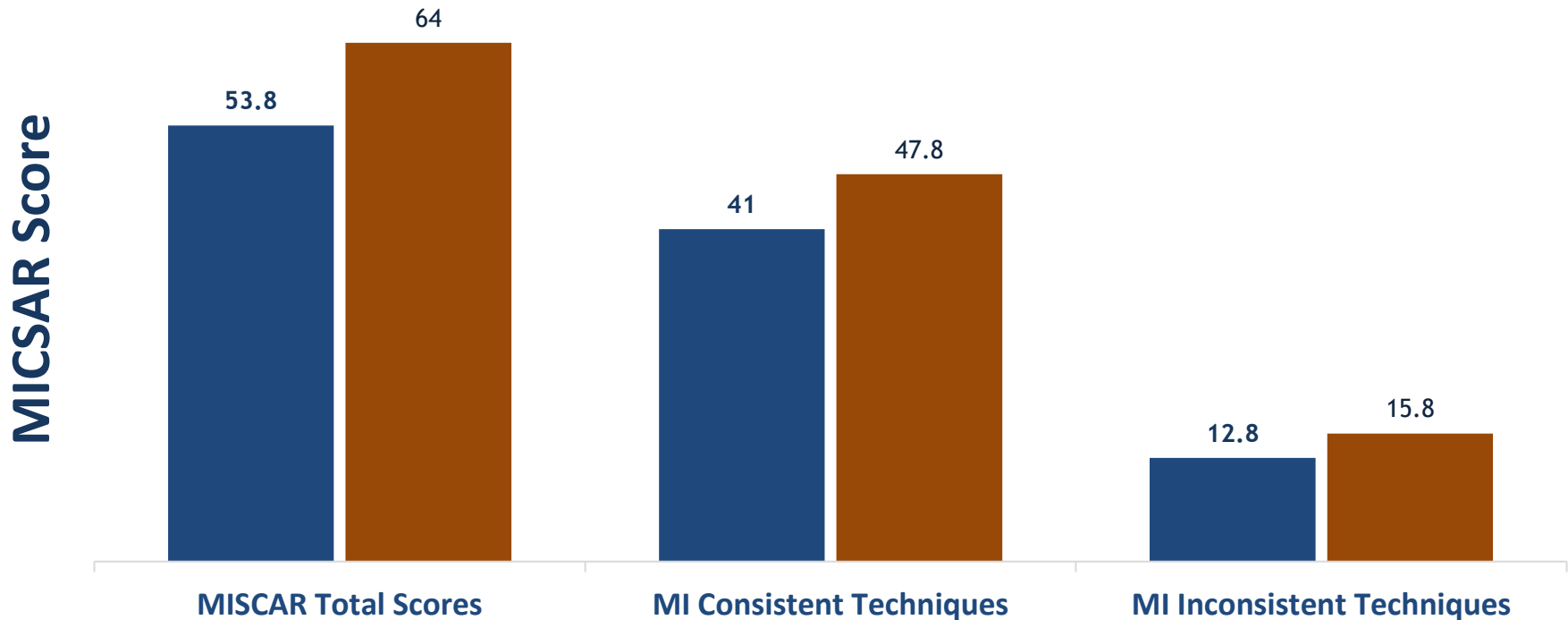
MICSAR Questions Average Change



Analyze Data, Cont.



Average MICSAR Scores



MICSAR Components

■ Pre-Survey ■ Post-Survey

Pre-Survey Participants

- 14 responses to the pre-survey, 5 were not appropriate to complete the survey
- 9 people completed the pre-survey, 6 completed pre and post
- Demographics of the 3 participants that did not complete post
 - 2 FNPs, 1 PNP
 - All with 1-25% of patients as adolescents
 - 2 with 1-2 years of experience, 1 with 6-10 years of experience
 - 2 of 3 had previous MI education
 - 2 of the 3 had higher MICSAR scores than the average group

MI Research and Pediatric Obesity

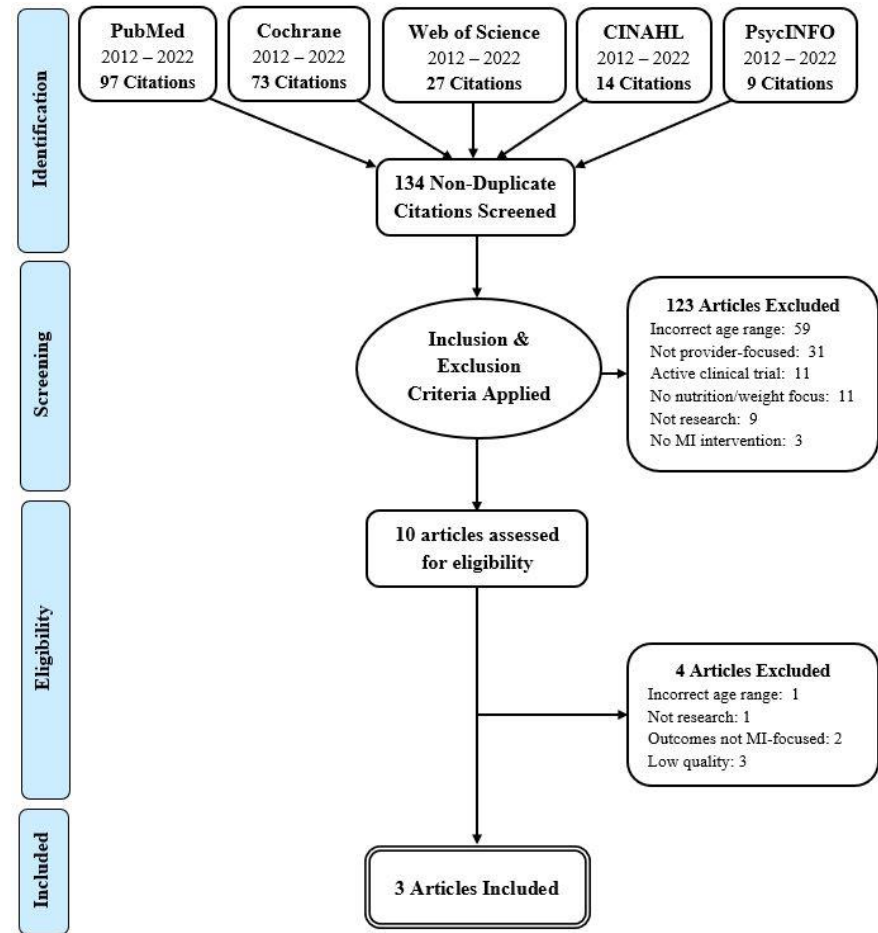
- RCT: adolescents with obesity, compared two different lifestyle interventions. Only one intervention included MI and cognitive behavioral therapy - this intervention resulted in a significant decreased percentage change in BMI z-score ($p < .001$) (Ball et al., 2011)
- Cluster randomization with school-based health centers (SBHCs): ACTION vs standard care. ACTION included 8 visits using MI focused on eating and physical activity behaviors. ACTION students had decreased BMI percentile ($p = .04$) and waist circumference ($p = .04$) compared to standard care students. (Kong et al., 2013)

MI Research and Pediatric Obesity

- RCT: efficacy of MI delivered by PCPs and registered dietitians on pediatric obesity. MI intervention resulted in a statistically significant decrease in BMI percentile (Resnicow et al., 2015).
- Observational study: relationship between physician MI techniques and adolescent reported physical activity, screen time, and weight. When physicians were more MI adherent, patients reported increasing moderate physical activity ($r = .41$, $p = .06$), reduced screen time ($r = -.46$, $p = .02$), and decreased self-reported weight ($r = -.46$, $p < .05$) (Pollack et al., 2007).

Review of the Literature

- Is there a MI intervention to educate providers on how to use MI with adolescents to address weight and nutrition?
- Johns Hopkins EBP Tool
 - Level I, high quality RCT
 - Level II, good quality quasi-experimental
 - Level III, good quality observational, non-experimental



Conclusions of Review

**Insufficient evidence to support one single
format of MI education**

Secondary benefits of MI

Various educational formats can be effective

