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# Improving Obesity-Related Chronic Disease Outcomes: Developing Nurse Practitioner Motivational Interviewing Skill Mastery

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# Objectives

**DESCRIBE HOW MOTIVATIONAL INTERVIEWING CAN IMPROVE DISEASE MANAGEMENT, CULTURAL COMPETENCE, AND MITIGATE WEIGHT BIAS**
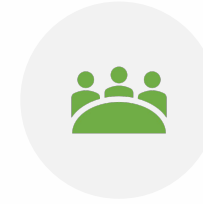
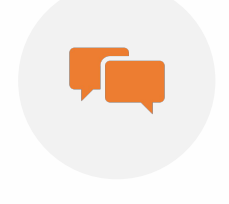**SUMMARIZE OF CURRENT EVIDENCE FOR THE USE OF MOTIVATIONAL INTERVIEWING**

**EXPLAIN THE ROLE OF MONITORING AND FIDELITY IN MOTIVATIONAL INTERVIEWING TRAINING**

**EXAMINE MAJOR MOTIVATIONAL INTERVIEWING SKILLS**

**DESCRIBE THE PROJECT AND MAJOR TAKEAWAYS**

**DISCUSS IMPLICATIONS AND DIRECTION FOR NP PRACTICE**

# Disclosures

**Most Images generated by PowerPoint**

**No financial relationships to disclose**

**This discussion describes a pilot project for doctoral candidacy at the University of San Diego**

**My esteemed faculty advisor:**
**Dr. Razel Milo, PhD, DNP, FNP-BC**

# Obesity Treatment Failure

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# Background and Significance

1 Billion people living with obesity worldwide (WHO).

Sharp rise in obesity rates in the US. 30% in 2010 to 40% in 2020 (CDC, 2023).

A major obstacle treating those with chronic illness is inspiring sustainable and impactful behavioral change.

Motivational interviewing (MI) is a highly effective evidence-based tool. (Song, Xu, and Sun, 2015)

Health education programs based on advice-giving -efficacy 5-10% (Song, Xu, & Sun, 2015)

Environmental Influences on Body Size (Pochobradsky, d. 2010) © Disney Pixar

# Environmental Influences…



(Cawley, C. 2020)

(Schaben, A. J. 2023)

# What is Motivational Interviewing?

**MI is a communication style designed to understand the patient's unique situation and perspective (Rollnick. et al., 2023)**

# Fidelity-Based MI

**"People will forget what you said, they will forget what you did, they will never forget how you made them feel." Maya Angelou**

**Establishes trust**
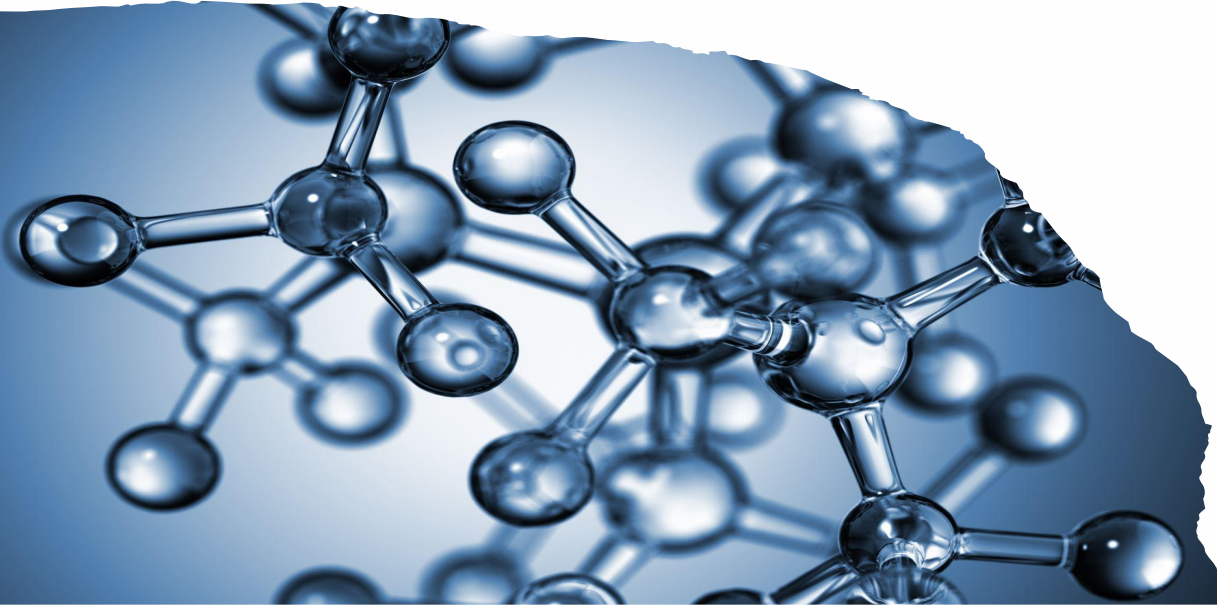
**Patient-Centered**

**Encourages introspection**

**Allows the patient space**

**Facilitates personal accountability**

**Supports cultural competence**

**Mitigates implicit weight bias**

**Time-smart**

# Implicit Bias of Obesity

- Bias contributes to a cycle of worsening disease and lessen treatment efficacy (Nadolsky et al., 2023)
  - Obesity is equated with laziness and lack of control
  - Weight is assumed synonymous with health

- Healthcare professional bias
  - Rathbone et al. (2021)
  - Ata et al. (2018)

# MI: Effect on Weight Bias

- Patient-centered communication such as motivational interviewing mitigates the effect of the communicator's implicit biases (Puhl et al., 2016; Kennedy et al., 2022).

  - MI is focused on understanding the patient ideas rather than imposing the practitioners

# Processes of MI (Rollnick et al., 2023)

- Engaging
  - inviting the patient express themselves
- Focusing
  - Collaborating on the topic of conversation
- Evoking
  - "Guiding in MI means guiding people to give voice to their own good reasons for change." (Rollnick et al., 2023, pp 93)
- Planning
  - This occurs when the patient is ready to act

# OARS – MI Skills (Rollnick et al., 2023)

- Open-ended questions
- Affirming
- Reflections
- Summarizing

# Open-Ended Questions

- Thought provoking
  - An invitation to think aloud
  - An invitation to expound or opine (on the positive)
- Non-yes or no
- Not always a question
- Non-fact-finding

# Affirming

Non-superficial observations about a person's strengths and lasting good qualities (Rollnick et al., 2023)

**Affirmations**

- Your determination is apparent.
- You made a decision and followed through.

**Superficial Praise**

- Wow, good job.
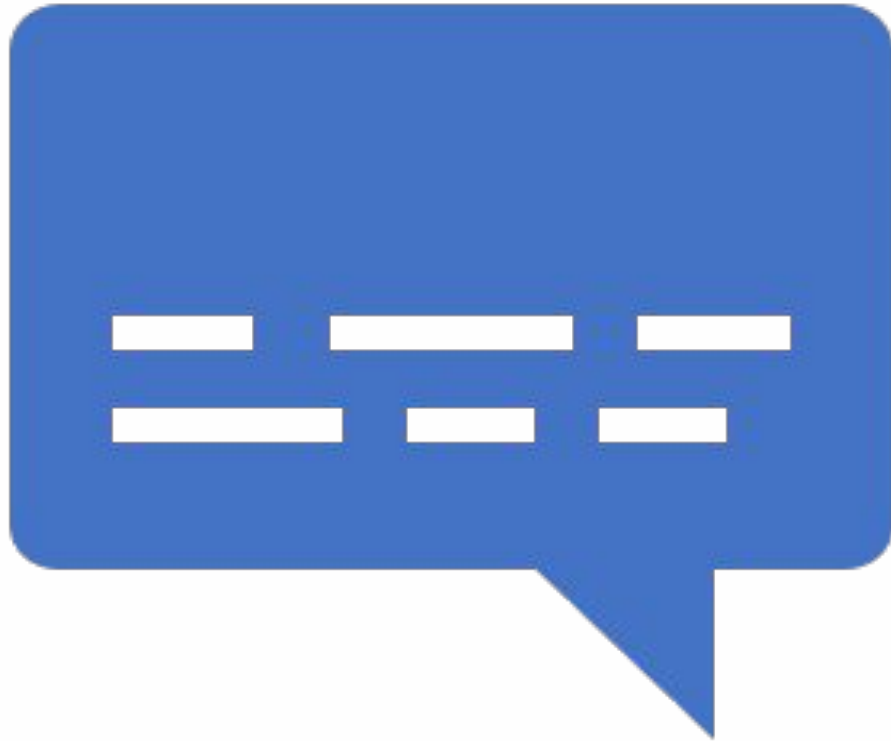- Good for you.
- That is awesome

# Reflections

Now known as a "listening statement." (Rollnick et al., 2023, pp. 39)

- Communicate your understanding of the meaning in the patient's statements
  - Conveys respect

# Summarizing

**Tell 'em what you going to say, say it, then tell 'em what you said.**

# Starting the Conversation

Tell me about your health goals?

You stated you'd like to lose weight. How would you go about it?

If you were to be successful, what would your life look like?

# Putting It All Together – MI Convo

**MI Conversation:**

**Tell me more about your exercise plan.**

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# Motivational Interviewing Don'ts

Don't tell the patient what to do. "Righting Reflex"

Do not give unsolicited advice or advice without permission.

Don't ask fact-finding question.

Don't ask why?

Don't start open-ended questions with what (use tell me about instead).

# Listening Statement (Reflection) Practice

**(Rollnick et al. 2023, pp. 43-45)**

"Lose some weight. I eat fairly healthy already, but I suppose I could make some changes there."

You can see there are some changes you can make there.

"I do have a sweet tooth, but I feel fine, and this is just one lab test, right?"

You're not sure how this can happen when you feel normal.

"I know I should quit smoking, but it's the only way I know how to relax."

You're concerned about how you'll deal with stress if you quit smoking.

# Evidenced-Based Pilot Project

## Motivational Interviewing Skills

# EBP Project Problem

## Poor Obesity & Related Disease Outcomes

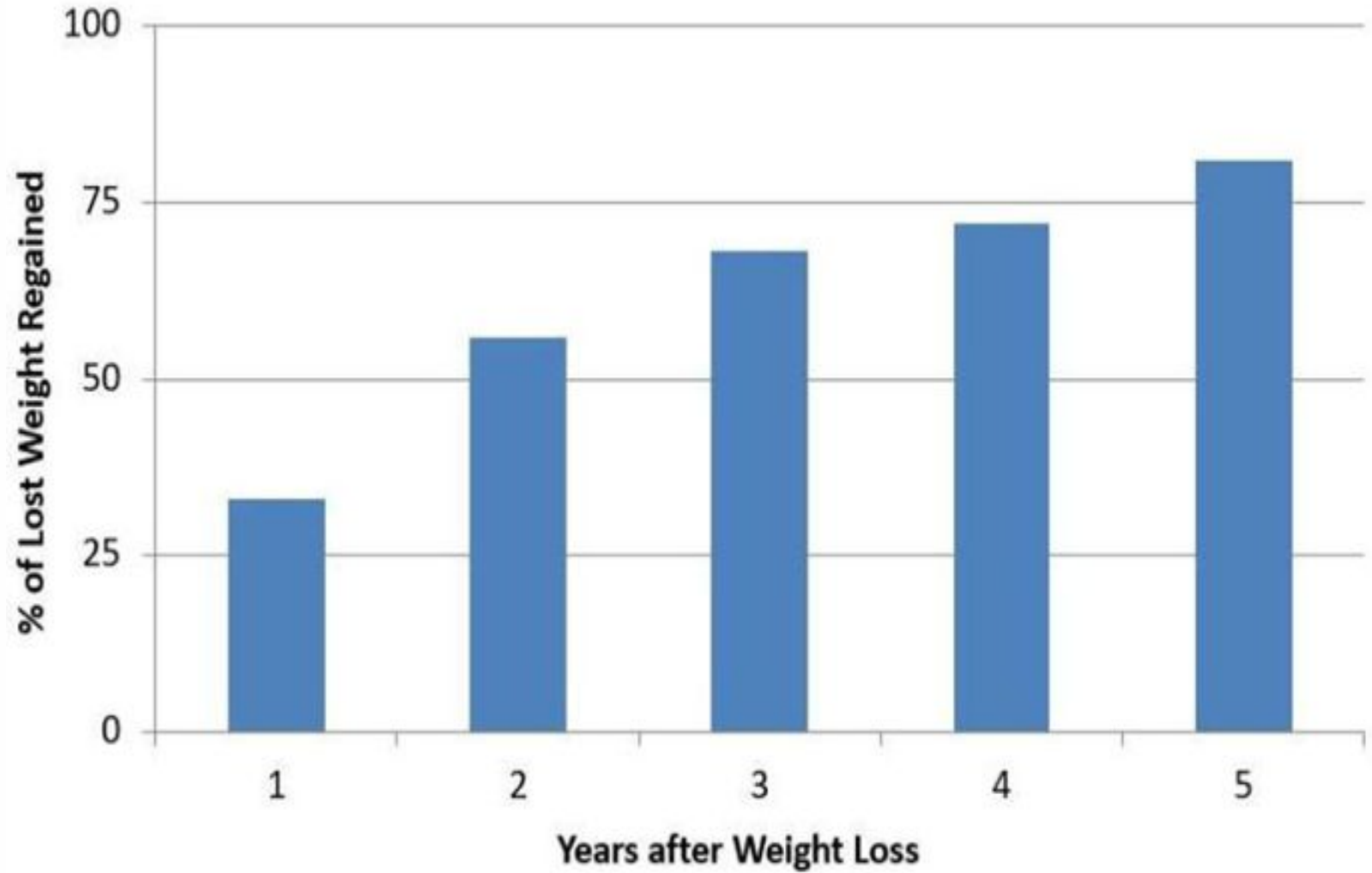- Nearly 50% of untimely deaths in the United States are due to modifiable behaviors (Philips, Frates, & Park, 2020).
- 80% PwOs gain back most weight by year 5 (Kaplan et al., 2017)

## MI Training Obstacles

- Traditional MI training Costly
- Time consuming to learn
  - Requires months
  - Fidelity matters

Devastating Truth

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# Evidence



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# PICO (T)

**In primary care providers does an internet-based MI training course, subsequent 45-minute skill-based practice session improve self-efficacy (L-SES) and provider skill (MITI scores) by 25% compared to no MI training at the end of 3 months.**

| Author(s) Name of article | Evidence Ranking | Summary |
|---|---|---|
| Barnes, R. D. and Ivezaj, V. (2015) A systematic review of motivational interviewing | Level I | • Meta-analyses of 22 studies<br>• 9 studies significant weight loss post MI<br>• 13 studies 5% weight loss post MI<br>• Half studies showed no improvement |
| Behre, K. K., Gebru, H. B., and Kahsay, H. B. (2020) Effect of motivational interviewing on HgA1C and depression | Level I | • Meta-analyses 8 studies<br>• MI resulted in statistically significant improvement in A1C in treatment group compared to control group p=0.003, CI 95%<br>• No improvement on depression symptoms |
| Bilgin, A., Muz, G. and Yuce, G. E. (2020) The effect of motivational interviewing on metabolic control and psychosocial variables | Level I | • Meta-analyses 16 studies<br>• MI decreased A1C, systolic BP, depression symptoms, emotional distress and self-efficacy, p=0.05 |

| Author(s) Name of article | Evidence Ranking (use Melnyk pyramid) | Summary |
|---|---|---|
| Song, D., Xu, T., Sun, Q. (2014) Effect of Motivational interviewing on self-management in patients with type II diabetes | Level I | • Meta-analysis 10 trials<br>• Self-management was significantly better in those post MI than control groups (p <0.00001, CI 95%) |
| Suire, K. B. et al (2020) Motivational interviewing for weight management among women | Level I | • Meta-analysis 7 studies of 10 studies<br>• Reduction of weight and BMI in MI group vs control group P<0.001, CI 95% |
| Swalbe C. S., Oh, H. Y. and Zweben, A. (2013) Sustaining Motivational Interviewing | Level I | • Meta-analysis 21 studies<br>• On average 3-4 feedback / coaching sessions over 6 months sustained MI skills |

# Hierarchy of Evidence

| Subject | Level I | Level II - IV | Expert Opinion | Totals |
|---|---|---|---|---|
| MI Treatment | 8 | 2 | 2 | 12 |
| Fidelity/Training | 1/3 | 5/2 | 1 | 12 |
| MI Implementation | 1 | 1 | 0 | 2 |
| Self-efficacy | 0 | 1 | 0 | 1 |
| Obesity Treatment/Guidelines | 1/3 | 11/0 | 2/0 | 17 |
| **Total** | **17** | **22** | **5** | **44** |

**Summary of Evidence**

**MI Treatment**

**8 Meta-analyses**
> 150 level II/III studies

**Outcomes**
Statistically significant improvements in:
Self-efficacy
Intent to change
AIC
Cholesterol
BP,
BMI

**Fidelity/Training**

**4 Meta-analysis**
>33 Studies
Report an incongruence between practitioner perception of fidelity and objective skill assessment

**Fidelity**
Monitoring improves fidelity
Fidelity improves outcomes

# Equivocal/Dissenting Evidence

Do not address MI fidelity or MI practitioner skill

At the heart of MI communication

| Patient centeredness | Respect | Collaboration |

Alternative is the status quo

# Improving Obesity-Related Chronic Disease Outcomes:
# Developing Nurse Practitioner Motivational Interviewing Skill Mastery

*Jodi Wilson, MSN, FNP-C, CEN, RRT*
*Dr. Razel Milo PhD, DNP, FNP-C*

**Hahn**
**SCHOOL OF NURSING AND HEALTH SCIENCE**
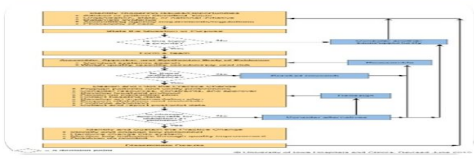University of San Diego

## Background

- Nearly 50% of untimely deaths in the United States are due to modifiable behaviors.
- Obesity rates have risen sharply in the last 10 years from 30% in 2010 to 40% in 2020; rates are predicted to worsen
- One billion people are obese worldwide
- A major obstacle to treating those with obesity-related chronic illness is inspiring sustainable behavioral change.
- Motivational interviewing (MI) is a highly effective evidence-based tool, yet under-utilized technique for overcoming personal change inertia.
- Monitoring MI treatment integrity (MITI) assures MI fidelity and increases efficacy.

## Evidence for Problem

| AUTHOR(S) NAME OF ARTICLE | EVIDENCE RANKING | SUMMARY OF EVIDENCE – KEY BULLET POINTS |
|---|---|---|
| Behre, K. K., Gebru, H. B., and Kahsay, H. B. (2020) Effect of motivational interviewing on HgA1C and depression | Level I | • Meta-analyses 121 studies<br>• MI resulted in statistically significant improvement in A1C in treatment group compared to control group p=0.003, CI 95%<br>• No improvement on depression symptoms |
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## Evidence-Based Intervention/Benchmark

- Internet-based Motivational interviewing training followed by 45-min practice sessions
- Pre and post self-efficacy survey – L-SES
- Monitor MI fidelity- evaluation of recorded MI sessions and provider feedback
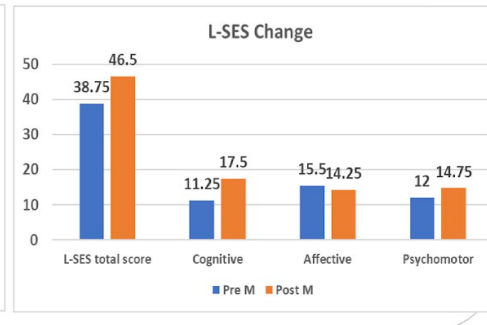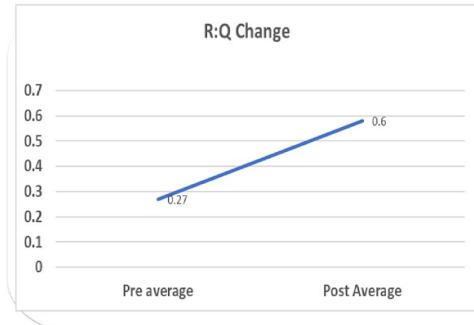- Improvement of MITI scores (RQ & CT) and L-SES scores by 20% within 3 months

## Purpose

This EBP aims to develop nurse practitioner skills in deploying MI by completing internet-based training course, live practice, and fidelity monitoring. The primary goal of MI is to increase adherence to lifestyle interventions and improv obesity-related chronic disease outcomes.

## Iowa Model



## Project Plan Process

- Pre-training (L-SES) survey May 3, 2023
- Record one MI session prior to beginning May 15, 2023
- Internet based training completed June 4, 2023
- One live 45-minute practice session by June 21, 2023
- Minimum Six recorded MI sessions by 10/31/23
- Target: minimum 1-2 recorded sessions per month July-Sept
- Post-project (L-SES) survey 11/15/2023
- Data analysis completed by 12/31/23


Row Upstream With O.A.R.S.

## Evaluation of Results


R:Q Change


L-SES Change

## Cost-Benefit Analysis

CBA = $\frac{\text{Program Benefits}}{\text{Program Costs}}$

= 57,200 / 1920 = 29.8

In a program size of 100, for every dollar spent, there will be a $29.79 cost savings.

ROI = $\frac{\text{Program Benefits} - \text{Costs of Program}}{\text{Program Costs}}$

29.8 X 100 = 2,979.2%

In a program size of 100, there would be a 2,979% return on investment

## Implications for Clinical Practice

- Advance whole patient approach
- Improved patient trust
- Improved patient-NP partnership.
- MI potential to further distinguish NP practice from the practice of medicine
- Use of MI to assist patients in incorporating sustainable lifestyle change and therefore lower overall obesity-related disease burden and cost.
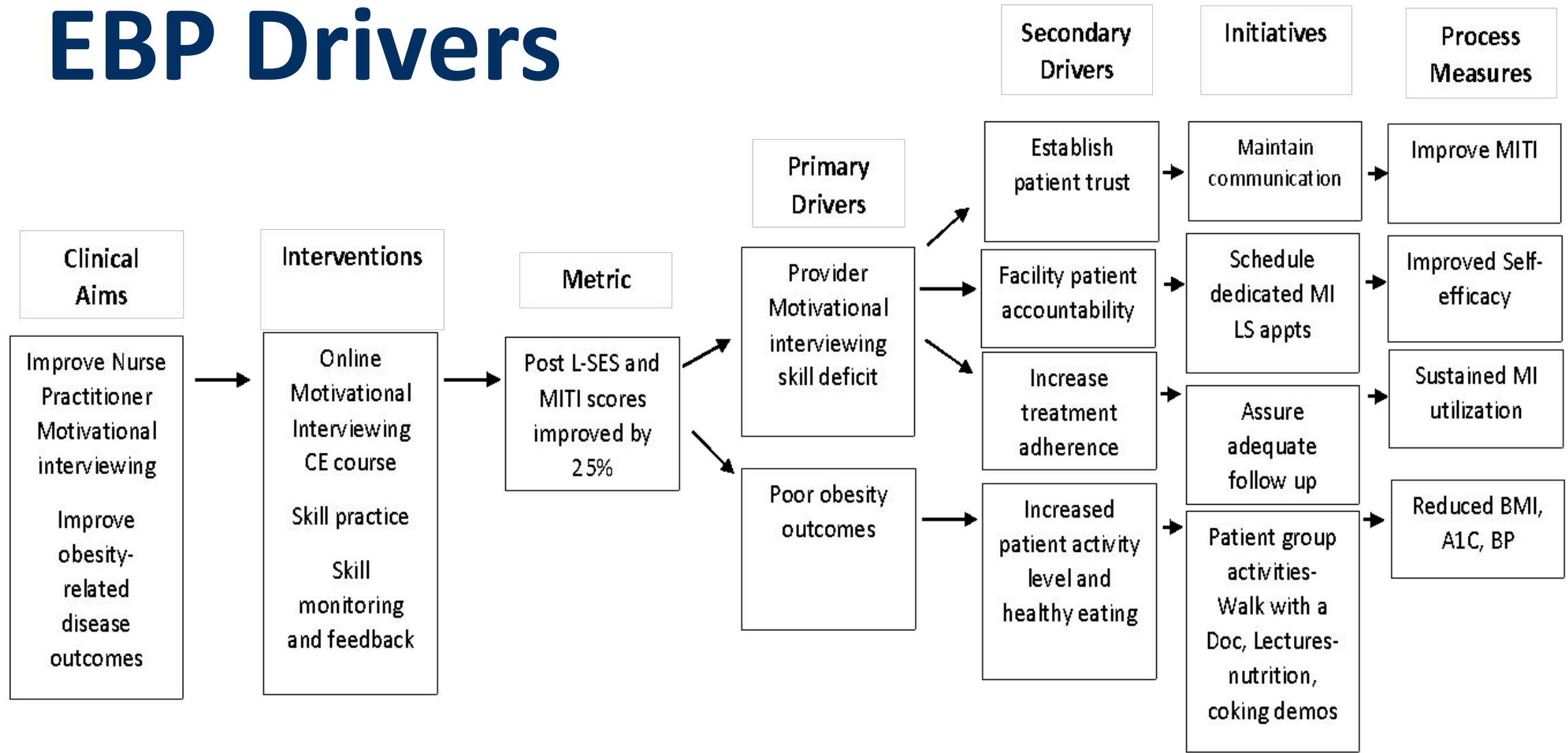
## Conclusions and Recommendations

- Motivational interviewing can be utilized to effectively inspire change in adopting healthy behaviors, ultimately lowering patient A1C and weight.
- Three months is an insufficient amount of time for training; more training hours improves MI fidelity – minimum 6-12 months is best.
- Evidence supports diffuse nurse practitioner adoption of motivational interviewing (through self-directed training and skill practice is feasible).
- Incorporate motivational interviewing training into NP primary education
- Implement MI training at National and local NP conference workshops.
- Continued research and outcomes monitoring is necessary.

# Evidence-Based Pilot Project

**Nurse Practitioner Training, Monitoring, and Fidelity**

# EBP Drivers



| Clinical Aims | Interventions | Metric | Primary Drivers | Secondary Drivers | Initiatives | Process Measures |
|---|---|---|---|---|---|---|

**Clinical Aims:** Improve Nurse Practitioner Motivational interviewing; Improve obesity-related disease outcomes

**Interventions:** Online Motivational Interviewing CE course; Skill practice; Skill monitoring and feedback

**Metric:** Post L-SES and MITI scores improved by 25%

**Primary Drivers:** Provider Motivational interviewing skill deficit; Poor obesity outcomes

**Secondary Drivers:** Establish patient trust; Facility patient accountability; Increase treatment adherence; Increased patient activity level and healthy eating

**Initiatives:** Maintain communication; Schedule dedicated MI LS appts; Assure adequate follow up; Patient group activities- Walk with a Doc, Lectures- nutrition, coking demos

**Process Measures:** Improve MITI; Improved Self-efficacy; Sustained MI utilization; Reduced BMI, A1C, BP

EBP Design

| Setting: Small 4 provider family practice Population: Adults ORCD | May 2023 | June 2023 | October 2023 | November 2023 | December 2023 |
|---|---|---|---|---|---|
| Project Live /Pre-SE survey | ■ | | | | |
| Pre- MI training recording | ■ | | | | |
| Training completion | | ■ | | | |
| Live Practice | | ■ | | | |
| Session recordings, coding & feedback | | ■ | ■ | ■ | ■ |
| Post-SE survey/MITI analysis Project Conclusion | | | | | ■ |

Results

Motivational Interviewing EBP Pilot
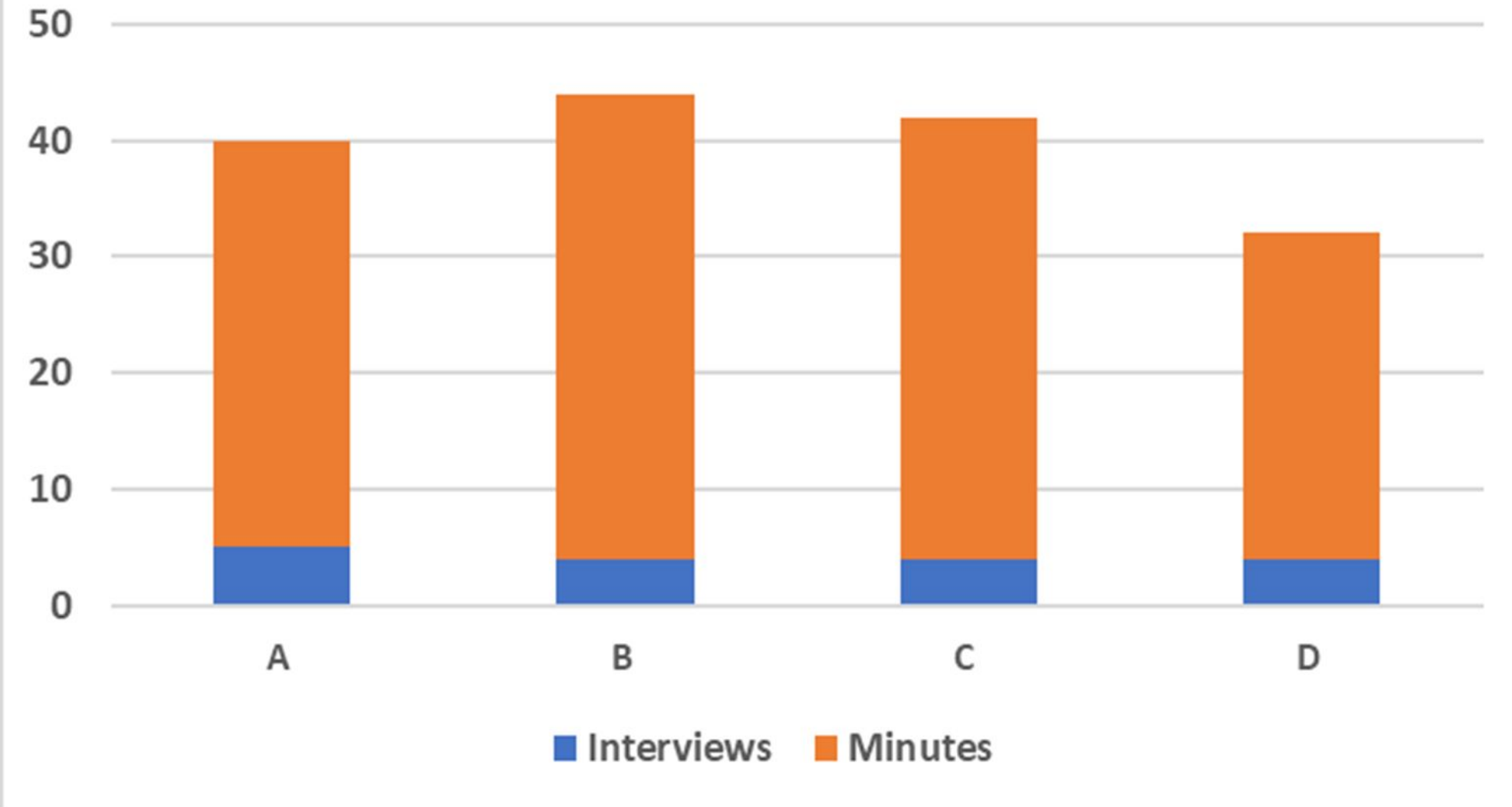
# Fidelity:
# Reflections to Questions
# Ratio
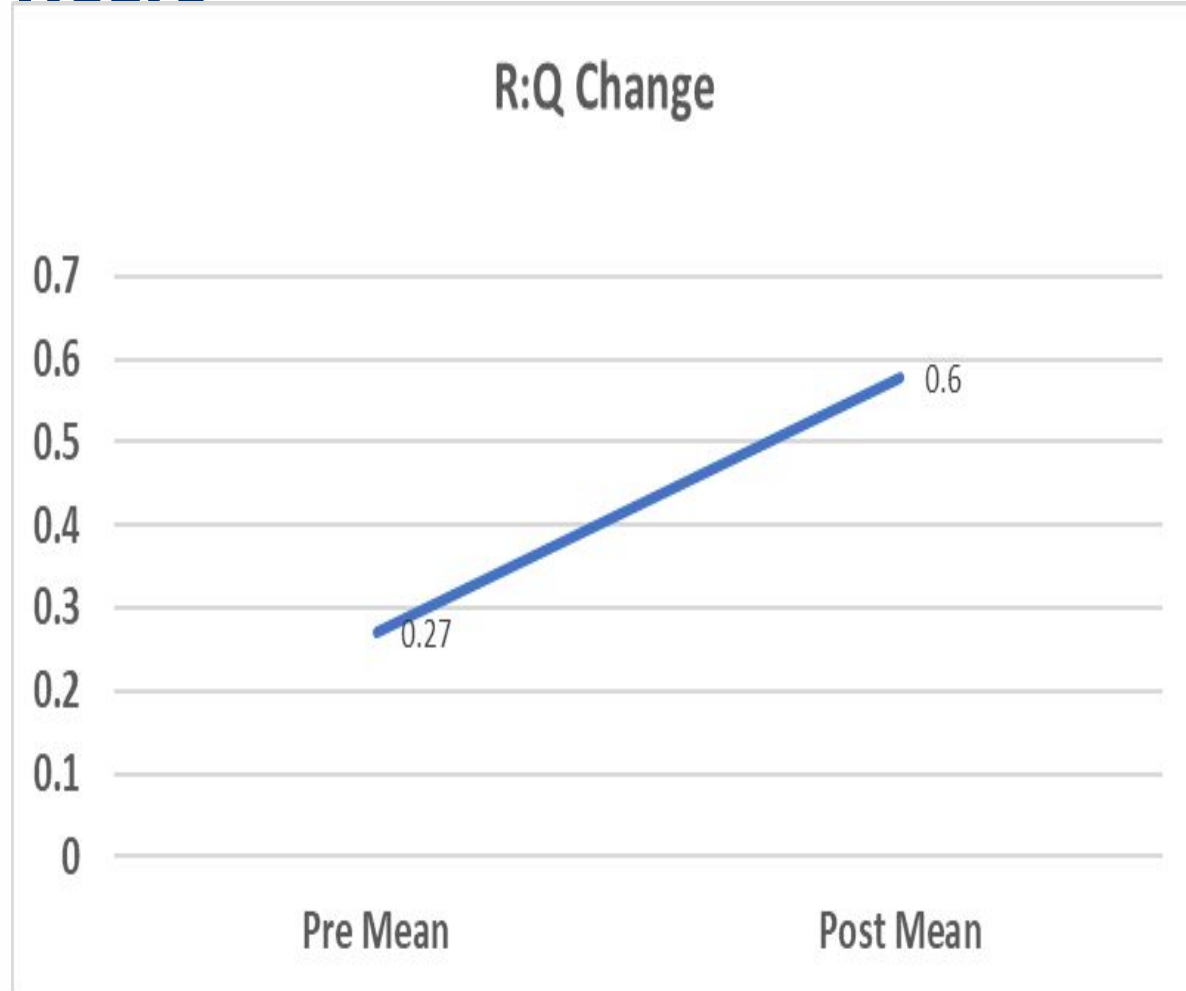
# Fidelity: Change Talk
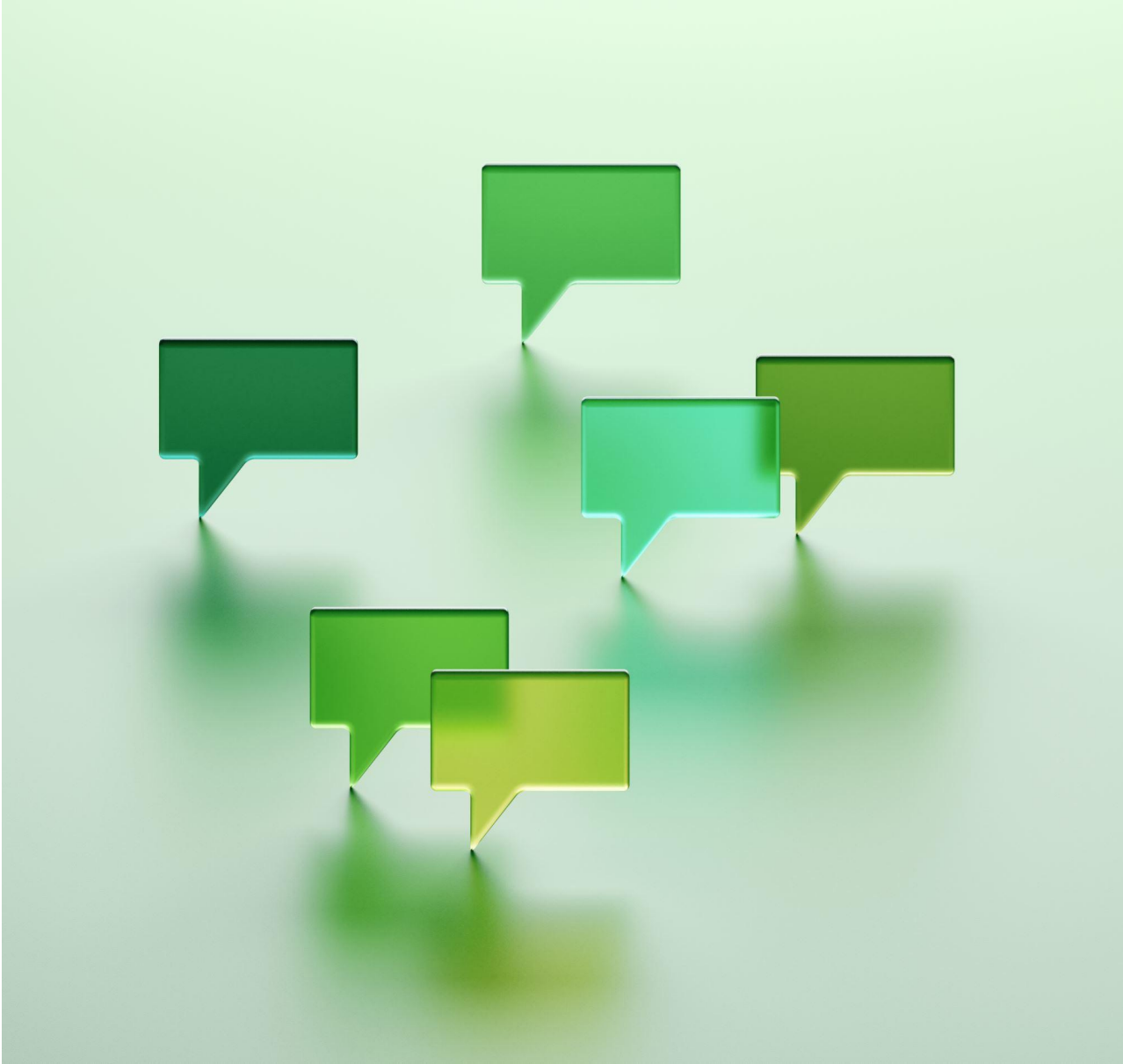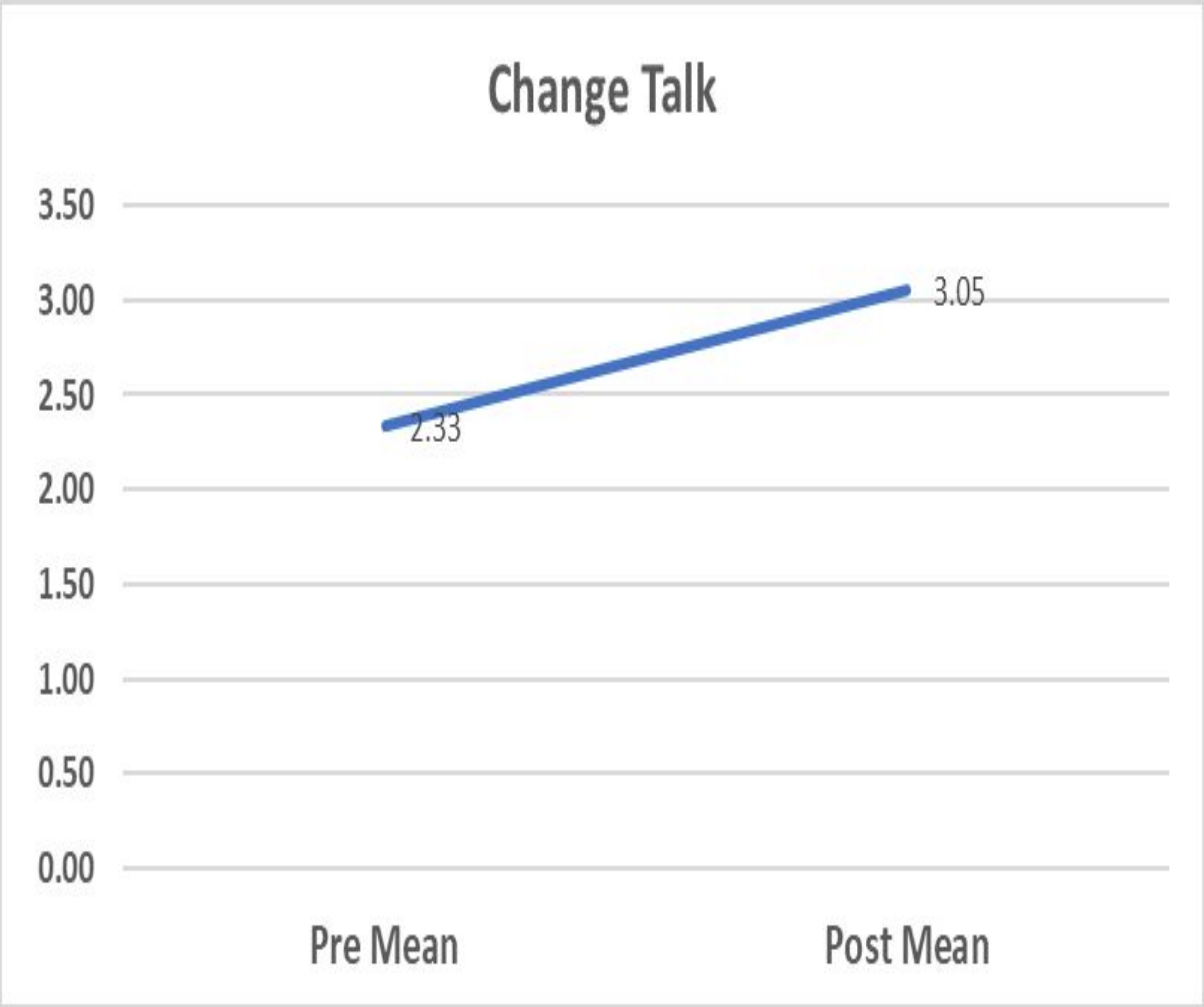
# Self-Efficacy



L-SES Change

| | L-SES total score | Cognitive | Affective | Psychomotor |
|---|---|---|---|---|
| Pre M | 38.75 | 11.25 | 15.5 | 12 |
| Post M | 46.5 | 17.5 | 14.25 | 14.75 |
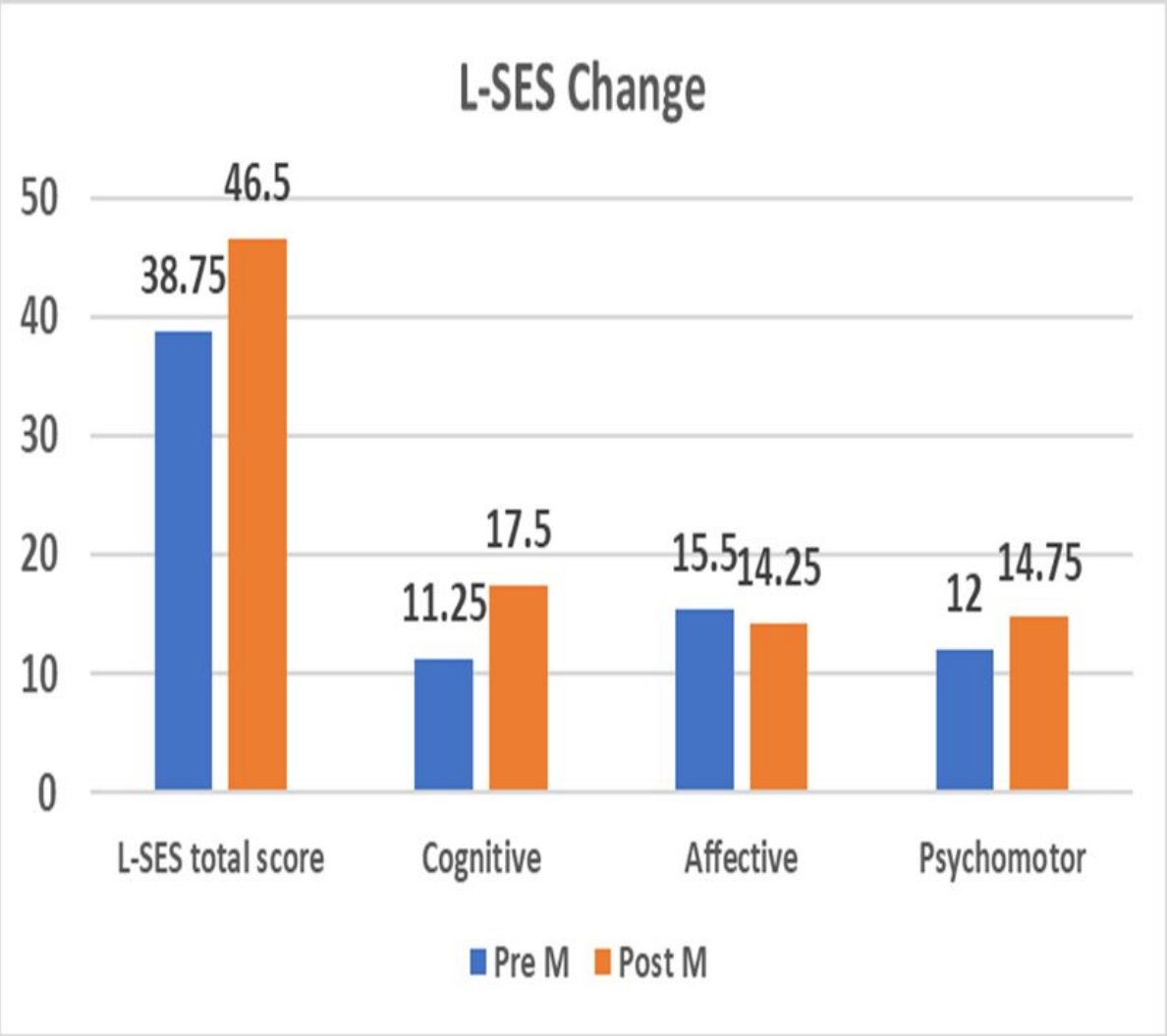
# Limitations

- Short implementation period

- Low budget – unfunded student EBP
  - Lack of professional MI guidance coaching
  - Novice MITI (fidelity) coder
  - EBP administrator self-coded
  - No division of administrative labor

# Conclusions

- Longer training period
- Monthly one on one feedback
- Emphasize and remind to review feedback reports
- More practice
  - 2-3 peer practice sessions
  - Increased number of recorded interviews
- Dedicated non-participant coder

# EBP Pilot Sustainability

- Provide Incentives to maintain skills
  - Annual Performance Review
    - MI CEs
- Recording submissions

# Recommendations

- **Incorporate MI into NP training**
  - NP Health Assessment course
    - OSCEs
  - Conference workshops & certification courses
  - Include in board exam content

- **More fidelity-based outcomes research**

- **Schedule follow-up for lifestyle intervention discussions**

- **What NPs can do for themselves now**
  - Read Motivational Interviewing in Healthcare (Rollnick et al.,2023)
  - Start by practicing

# Implications for Advanced Practice Nursing

- Better treatment outcomes with NPs
  - Improved treatment plan adherence
  - Lower rates heart attacks, strokes etc.
  - Improved disease control
  - Improved trusting patient-clinician relationship/partnership

# Recap: MI Moving the Profession Forward



- Increases Treatment Adherence
- Improves Wellness Indicators
- Enhances NP-Patient Trust
- Betters Cultural competence & Implicit Bias
- Widely Infuse MI Into NP Practice
- PICO (T) Question Answer YES

# Thank You for Listening

MI not a novelty but a necessity

"People will forget what you said, they will forget what you did, they will never forget how you made them feel."

Maya Angelou

# References and Resources

**References**



**University of Maryland MI Certificate Program $1400**

**Umass Chan Medical School MI Certification Program $1550**