Using Motivational Interviewing to Address Obesity – A Global Perspective

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DISCLOSURE

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• No Conflict of Interest

• No Sponsorship or Commercial Support was provided to the Author
LEARNER OBJECTIVES

• The learner will be able to generalize the use of Motivational Interviewing (MI) to address obesity within their patient population.

• The learner will be able to construct an evidence-based practice (EBP) project plan that addresses global obesity.
**BACKGROUND**

- Obesity is a growing public health concern affecting all ages and socioeconomic groups both nationally and globally. In the United States (U.S.), commercial truck drivers (CTDs) have a 15% higher rate of obesity compared to the general population (Apostolopoulus, Sonmez, Shattell, Gonzales, & Ferenbacher, 2013).

- The purpose of this evidence-based practice (EBP) change project was to promote weight loss for CTDs by providing motivational interviewing (MI) and education to increase self-efficacy in their ability to make healthy diet and exercise choices.

- An EBP change project that uses MI to increase self-efficacy for healthy behavior change was developed to impact obesity, a leading health indicator with national and global implications. The project took place at an occupational health center located at a global battery manufacturer in eastern Pennsylvania, U.S.A. There are approximately 400 CTDs that receive care at the occupational health center.
INTERVENTION TO IMPACT OBESITY

• Motivational interviewing (MI) is a method of behavioral counseling that impacts obesity by supporting positive behavior change.

• Motivation and self-efficacy have been found to be key indicators in weight loss and a healthy lifestyle (Fisher & Al-Oballi Kridli, 2014).

• MI has been suggested to be effective in promoting CTDs confidence or self-efficacy to sustain healthy behavior change, thereby improving weight loss outcomes.
EVIDENCE

• Several studies have strongly suggested that MI has resulted in weight loss. While other studies have strongly indicated that self-efficacy has a role in a person’s ability to change behavior, specific to achievement of weight loss.

• A systematic review by VanBuskirk and Wetherell (2014) validated the effectiveness of MI for weight loss and the researchers suggest as few as one MI session may be effective.

• Studies suggest that there is a favorable relationship between MI, self-efficacy, and weight loss. Meybodi, Pourshrifi, Dastbaravarde, Rostami, and Saeedi (2011) validated the effectiveness of MI to increase self-efficacy for weight loss. Self-efficacy was measured using a questionnaire and weight loss was measured in BMI reduction.
EBP METRIC TOOL

• The *Weight Efficacy Lifestyle* (WEL-tool) questionnaire was used to measure CTDs self-efficacy for eating behaviors.

• The (WEL-tool) is a 20-item self-report questionnaire developed by Clark, Abrams, Niaura, Eaton, and Rossi in 1991, that asks questions about eating habits and behaviors.

• A modified version (modWEL-tool) was created by Schulz and McDonald (2011), adding 4 additional questions about exercise behaviors and genetic factors. The (modWEL-tool) was used for the EBP project.
PROJECT PLANNING

- The entire EBP project was implemented in 14-weeks.
- Planning a project requires leadership through a series of steps to include assessing readiness to change, building a collaborative team, deciding on materials and resources, risk management, utilizing technology, and obtaining organizational approval (Harris, Roussel, Walters & Dearman, 2011).

  - **Step One: Assess Organizational Readiness to Change** (Melnyk & Fineout-Overholt, 2011) – Start by obtaining leadership commitment.
  - **Step Two: Build Interprofessional Collaboration** - Construct a team of diverse professionals and schedule regular meetings to achieve goals.
  - **Step Three: Risk Management Assessment** – Perform a SWOT analysis (strengths, weaknesses, opportunities, and threats) to determine both potential benefits and potential barriers that may impact implementing a successful EBP project (Harris et al. 2011).
  - **Step Four: Organizational Approval Process** – Obtain written approval from leadership.
PROJECT PLANNING

- **Step Five: Plan Information Technology** – What software technology is needed for education, collecting data, data analysis? Is a cell phone, laptop or tablet needed?

- **Step Six: Materials Needed for the Project** – Flyers, consent forms, educational forms, copier, paper and other office supplies, medical equipment, secure locked cabinet for privacy.

- **Step Seven: Plan for Institutional Review Board Approval** – Evaluation and approval process to ensure project is voluntary and provides minimal risk to the participant population – may take 4 to 6 weeks or longer.

- **Step Eight: Plan for Outcome Evaluation** - Data management and data analysis – determine benchmark(s) for evaluation of outcomes. How will data be collected and stored? How will data be analyzed?
PROJECT DESIGN & TIMELINE

- The entire EBP project was completed in 14-weeks and implemented in Four Phases

- **Phase 1** – (Week 1 through Week 7) Recruitment and Engagement.
  - Volunteer CTD participants were engaged with flyers, posters, and in person during visits to the health clinic. No personal identification information linked CTDs to the project. Total time for each CTD was 2 hours over a 4-week period.
  - Project entailed 2 clinic visits lasting approximately 45-minutes. The first clinic visit on Week 1 and the second clinic visit on Week 4. Clinic visits included BMI, education, MI session, and self-efficacy (modWEL-tool) questionnaire.
  - On Weeks 2 and 3, CTDs received a 15-minute phone call to provide support, encouragement, and answer questions.

- **Phase 2** – (Weeks 8 & 9) Interpretation of the Data Collected

- **Phase 3** – (Weeks 10 & 11) Evaluation of the Project Outcomes

- **Phase 4** – (Weeks 12, 13, 14) Written Summary of Findings
VOLUNTARY PARTICIPATION

• The EBP project focused on inviting CTDs to participate for a total of 2-hours over a 4-week period, during the 14-week project plan.

• **Week one** focused on obtaining a baseline BMI measurement and completing a pre-questionnaire (modWEL-tool) to measure self-efficacy prior to a MI session. The MI session included education regarding diet and exercise to improve self-efficacy, as well as offering encouragement.

• During **weeks two and three**, the CTDs received a telephone call from the project implementer (PI), asking status of behavior change, providing encouragement, and answering questions.

• **On week four**, the CTDs returned to the clinic to have their BMI measured and received a second and final MI session along with additional diet and exercise education based on individual needs. At the end of the second visit, the CTDs completed a post-self-efficacy questionnaire (modWEL-tool).
PARTICIPANT OVERVIEW

• During the recruitment phase (weeks one to seven), 22 participants volunteered for the EBP project. 19 participants successfully completed the requirements.

• All 22 participants were male, between the ages of 26 & 69, with a mean age of 44.8. No females volunteered to participate.

• Reported participant ethnicity lacked diversity with 91% (n=20) were Caucasian, and 2% (n=2) were Hispanic.
TWO OUTCOMES MEASURED

• The EBP change project measured and evaluated (weight loss and self-efficacy) in CTDs.

• **First Outcome** was weight loss measured as a *decrease in BMI*.

  Benchmark was selected based on the Centers for Disease Control, 2015) recommendation that healthy weight loss is losing 1/2 to 2 pounds per week, calculated as a <0.5kg/m² decrease in BMI. A comparative means compared the initial BMI pre-MI intervention with the final BMI post MI-intervention.

• **Second Outcome** was to achieve an *increase in self-efficacy for weight loss*, measured using a pre- and post-questionnaire (modWEL-tool).

  Benchmark of 11% or > change in means showing improvement in self-efficacy was selected based on a study by Hays et al. (2014).
SUMMARY OF FINDINGS

FIRST OUTCOME
BMI REDUCTION
- 73.7% of participants reached the benchmark of weight loss (<0.5kg/m2).
- Additionally, 10.5% of participant's experienced improvement in BMI but did not reach benchmark.

SECOND OUTCOME
INCREASE IN SELF-EFFICACY
- 52.6% reached benchmark (11% or > change in means).
- Additionally, 31.6% experienced improvement in self-efficacy but did not reach benchmark.
OUTCOMES MET BENCHMARK

PERCENT WITH BMI REDUCTION

- Reached benchmark, 73.7%
- No change or gained (did not meet benchmark), 15.8%
- Improved (did not reach benchmark), 10.5%

PERCENT WITH CHANGE IN SELF-EFFICACY

- Reached benchmark, 52.6%
- Improved (did not reach benchmark), 31.6%
- No change or gained (did not meet benchmark), 15.8%
CONCLUSION and QUESTIONS

• Outcomes suggested that Motivational Interviewing (MI) was successful in helping CTDs increase their confidence for weight loss.

• An EBP project using MI to impact obesity can be successfully implemented by following the recommended steps of the project plan.

• THANK YOU!

• QUESTIONS?
REFERENCES


