

Implementing an online intervention to enhance healthcare providers' proficiency in general nutrition and nutrition counseling of the substance abuse population

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Introduction & Background

- Poor nutrition is a huge contributor to the burden of disease and healthcare costs in the US
- Substance use disorder (SUD), a disease that affects an estimated 20.3 million U.S citizens, is closely linked to malnutrition and dysfunctional eating patterns
- Individuals with chronic illnesses such as SUD often do not receive the requisite nutrition management due to inadequate provider training
- Gaps of nutritional training and education in healthcare institutions is well-documented in the literature
- Studies have reported that healthcare professionals, students, as well as program faculty believe that nutrition education is essential, and their current training is inadequate
- No formal nutrition education requirements have been identified

Purpose

The purpose of this project is to determine whether, in healthcare professionals, an evidence-based nutritional module improves proficiency in general nutrition as well as the unique needs of the substance use population.

Aims

- Deliver an online education module based on an EBP nutritional curriculum within the academic setting.
- Evaluate changes in participants' general nutritional knowledge
- Evaluate changes in participants' confidence to implement disease-based nutritional counseling

Methods

Design: The study was a one-sample pre-posttest study design set at a top-ranked nursing school located in the northeastern region of the US

Sample Criteria: Healthcare students and professionals >18 years of age

Measurement Tools

- General Nutrition Knowledge Questionnaire (GNKQ-R)
- Confidence Self-Assessment

Intervention: Online Educational Module

- 30-minute virtual module incorporating disease-focused nutrition education for the SUD population
- Incorporation of an EBP nutrition curriculum, guidance from addiction experts, literature review, and discussion with members of the SUD community
- Pre-test, nutrition education module, and immediate post-test were delivered through Qualtrics

Results

Table 1.

Participant Characteristics (N =14)

	n (%)
Sex	
Female	13 (92.9)
Male	1 (10)
Ethnicity	
White	8 (57.1)
Black/African American	1 (7.1)
Latino/Hispanic	1 (7.1)
Asian/Pacific Islander	4 (28.6)
Occupation	
Nurse	2 (14.3)
Nurse Practitioner	1 (7.1)
Nursing Student with BSN	5 (35.7)
Nurse Student without BSN	5 (35.7)
Other	1 (7.1)

Table 2.

Results of Pre-and Post- Confidence Survey Scores

Survey Questions	Baseline Median (IQR)	Post-Intervention Median (IQR)	p-value
Q1: Nutrition Knowledge Confidence	4 (0.5)	4 (0)	0.500*
Q2: Nutrition Counseling Confidence	4 (1)	4 (0.5)	0.125*
Q3: SUD Nutrition Confidence	2 (1.5)	4 (0.5)	0.016*

Note. SUD= substance use disorder; IQR: interquartile range; Scores range from 1 (strongly disagree) to 5 (strongly agree); *McNemar's Test

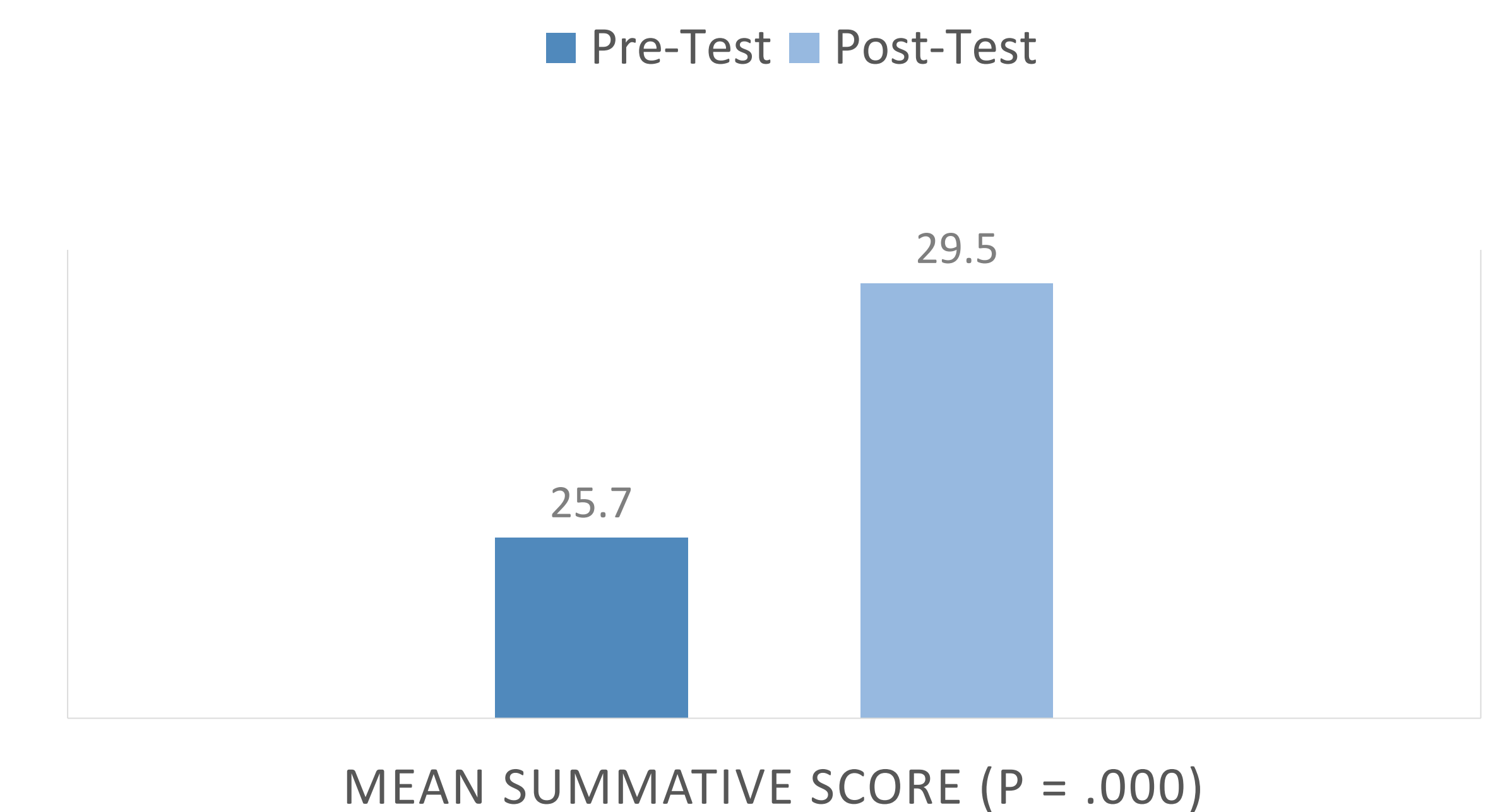
Knowledge Findings: Paired t-test was used for analysis

- Significant 15% increase after the online intervention was given (Figure 1)

Confidence Findings: McNemar's test was used for analysis (Table 2)

- Significant increase in confidence regarding substance use-related nutritional needs
- No significant changes in the other areas of confidence including nutrition counseling or nutrition knowledge confidence

FIGURE 1. PRE-POST NUTRITION KNOWLEDGE SCORES



Conclusion

- The brief nutrition module improved nutrition knowledge and confidence regarding substance-related nutrition needs
- There is potential to supplement healthcare programs especially with transition to distance learning
- Future research should also extend the training length to determine the impact on outcome measures
- Future interventions should look at the long-term outcomes on nutrition knowledge and confidence

Dissemination

- Submission of the pilot intervention to relevant peer-reviewed journals
- Share findings with stakeholders of healthcare universities as well as treatment facilities
- Advocate for continued efforts to increase nutrition education at local and state levels.