

# Provider Education to Promote Nutritional Guidance in Primary Care: A Quality Improvement Project

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## ABSTRACT

Projections indicate a looming crisis: By 2030, around 50% of adults in the United States will be classified as obese (Ward et al., 2019). This alarming trend underscores the urgent need for a comprehensive public health response to address the associated health risks and economic consequences, with obesity costing the U.S. healthcare system nearly \$173 billion annually (Centers for Disease Control and Prevention [CDC], 2024).

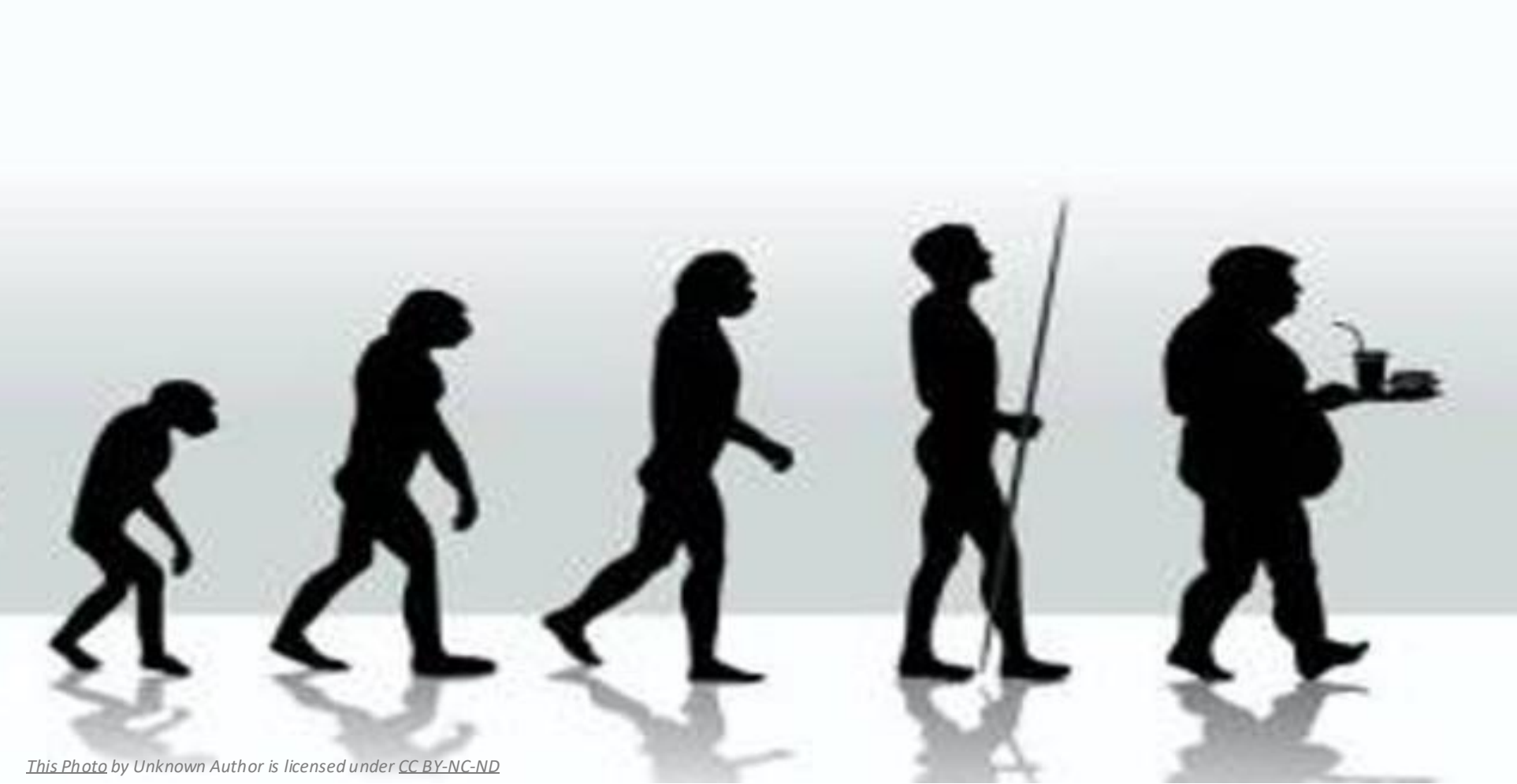
To effectively combat these challenges, medical professionals must prioritize nutrition, a significant factor in weight gain. Primary care providers are essential in educating patients to adopt healthier lifestyle choices. Additionally, enhancing nutrition education during medical visits aligns with the goals of Healthy People 2030, which aims to increase discussions about proper nutrition in clinical settings (Rine, 2021).

## INTRO / GOALS / OBJECTIVES

The focus of my project is on the confidence and capability of primary care providers in delivering comprehensive patient education regarding nutrition and its essential role in both weight management and overall health. It has been observed that medical providers frequently encounter difficulties in offering nutritional education during patient visits due to constraints such as limited time, resources, and knowledge. A study published in 2019, titled "Doctoring Our Diet," indicates that medical professionals receive less than 1% of their education dedicated to nutrition and dietary practices (Broad et al., 2019).

The objectives of this project include collecting data from a sample of providers in Western North Carolina regarding the number of patients who could benefit from nutritional education. Additionally, the project aims to determine whether providers are referring patients to dietitians or nutritionists and to evaluate their confidence levels in discussing nutrition and dietary matters with patients.

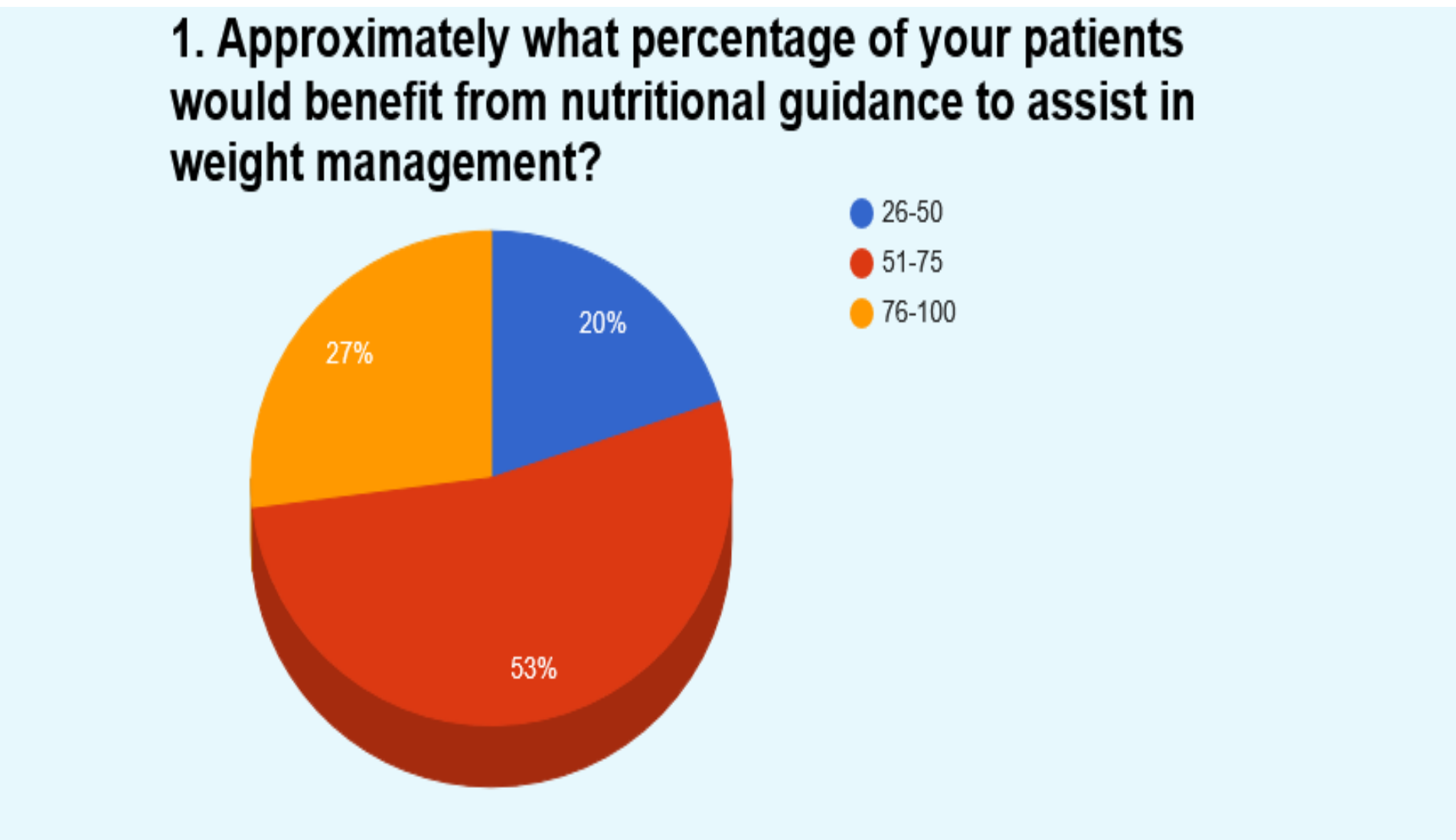
To address these needs, a brief training session was developed, focusing on the basal metabolic rate (BMR), including methodologies for calculation and application in patient instruction. The training also encompassed fundamental principles of good nutrition and practical strategies for patients to enhance their dietary habits, thereby supporting healthy weight and reducing the risk of chronic health conditions. Following the in-service training, I will reassess the providers' confidence levels concerning nutritional education.



## METHODS

A cohort of 15 Nurse Practitioners engaged in a voluntary virtual presentation focused on nutrition in primary care. The participants represented a diverse array of primary care settings, ranging from privately owned practices to large healthcare organizations. Each participant completed identical Pre/Post assessment surveys and attended a 45-minute training session that addressed topics such as Basal Metabolic Rate (BMR), foundational nutrition principles, and methods for integrating nutrition into patient lifestyles.

The Pre/Post surveys were conducted utilizing Qualtrics web-based surveys, which participants accessed via QR codes. Each survey consisted of five carefully structured questions aimed at gathering data on the percentage of patients who would benefit from nutrition education, the providers' confidence in delivering nutritional guidance to patients, and the types of diets typically recommended by providers. After the training, a post-survey evaluated provider confidence levels and their intentions to change practices.



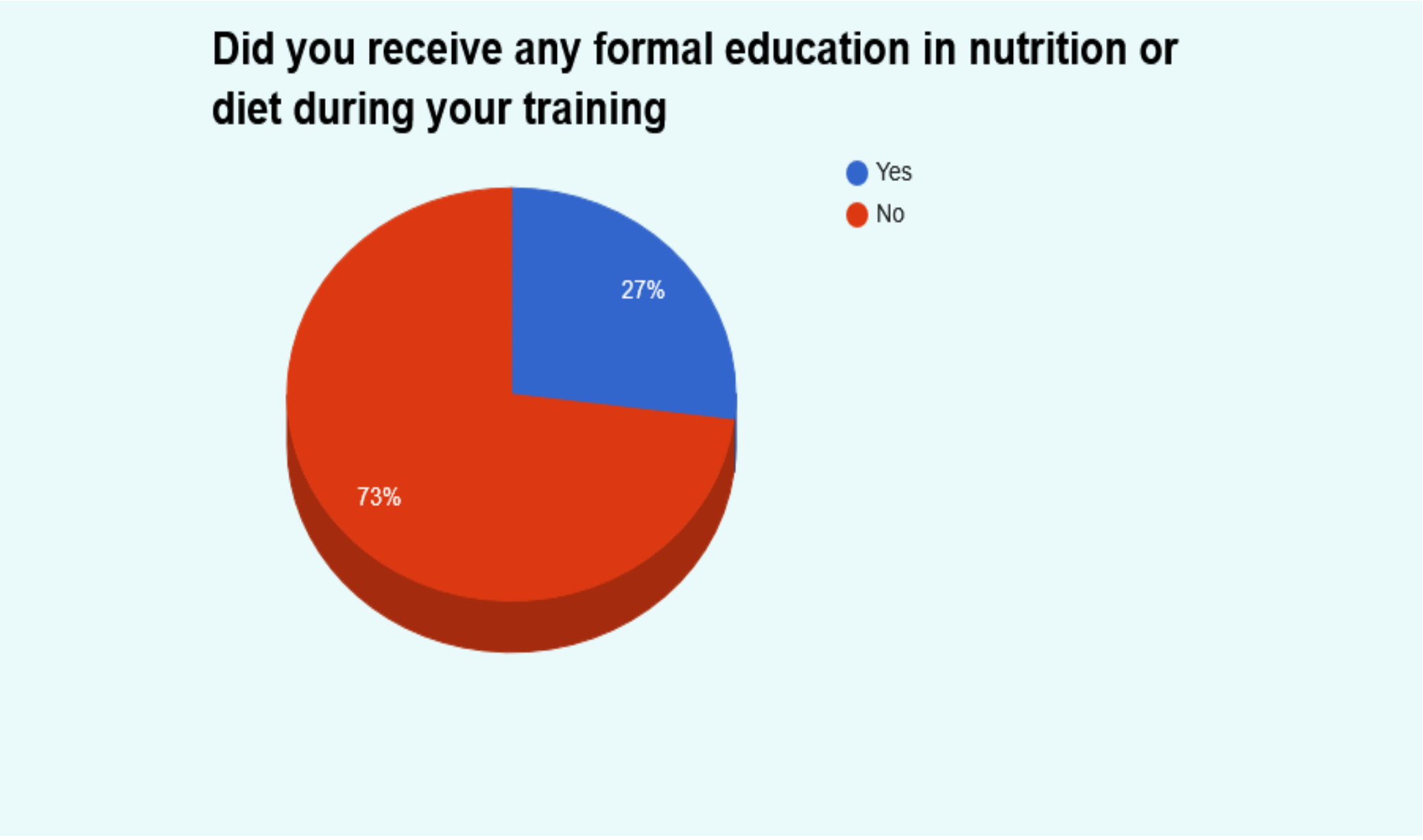
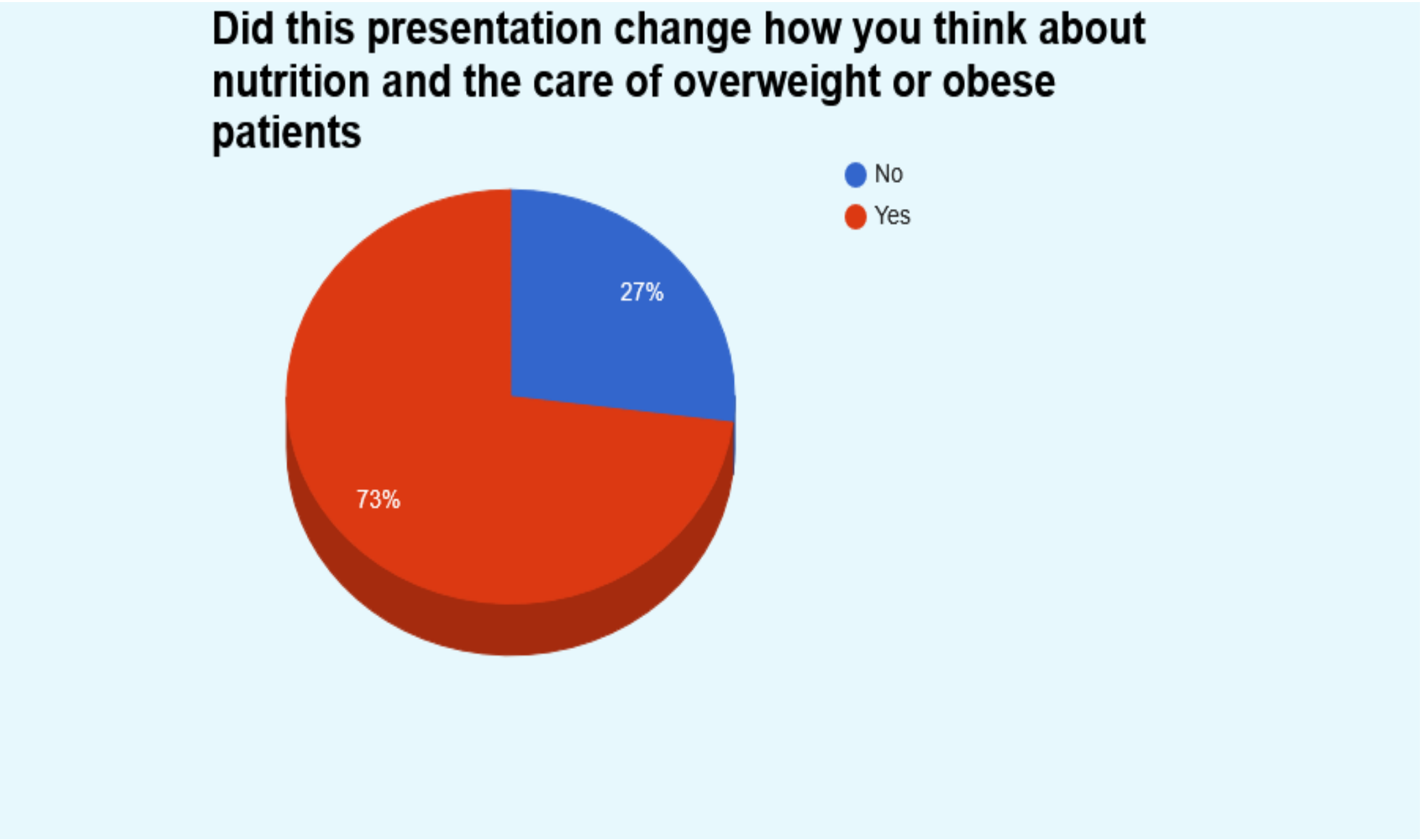
## RESULTS

Pre-assessment surveys revealed an average confidence level of 6 on a scale of 1 to 10, where 1 indicates no confidence and 10 represents maximum confidence. In contrast, post-assessment surveys showed an increased average confidence level of 7.13. To ascertain the statistical significance of this change, a paired t-test was conducted using SPSS software.

*The analysis demonstrated a statistically significant small difference between the pre-intervention ( $M = 6$ ,  $SD = 2.8$ ) and post-intervention ( $M = 7.1$ ,  $SD = 1.9$ ) confidence levels, with  $t(14) = 1.9$  and  $p = 0.042$ .* Given that the p-value is less than 0.05, these findings suggest that educational interventions for healthcare providers effectively enhance their confidence in imparting nutritional knowledge to patients.

Additionally, 80% of respondents reported an intention to modify their practices to integrate more nutritional education into patient interactions. Among the 20% who indicated they would not change their practices, the rationale provided was that the training affirmed their existing approaches. Furthermore, 73% of respondents stated that the presentation influenced their perceptions regarding the care of overweight or obese individuals, while 27% indicated that their perspectives remained unchanged.

## RESULTS CONTINUED



The survey results indicated that 80% of respondents expressed an intention to enhance their practices by incorporating more nutritional education into their interactions with patients. Of the 20% who chose not to change their practices, many cited that the training confirmed their current approaches. Additionally, 73% of respondents noted that the presentation positively influenced their views on caring for overweight or obese patients, while 27% felt their perspectives remained the same. It is noteworthy that 73% of participants reported lacking any formal nutritional education during their own training, highlighting a potential area for improvement in professional development.

## CONCLUSIONS AND RECOMMENDATIONS

This study underscores the critical need for enhanced nutritional education within both undergraduate and graduate medical programs, as well as the importance of ongoing education for current healthcare providers in the United States. Although the study was conducted on a small scale, its findings can serve as a valuable resource for guiding future research on nutritional education for healthcare professionals and its potential benefits for managing overweight and obese patients.

There are plans to follow up with participants to evaluate their confidence in caring for and educating patients with weight-related challenges. Furthermore, this study could serve as a foundational model for a larger investigation of a similar design, the results of which could inform recommendations to key accreditation bodies, such as the American Association of Nurse Practitioners (AANP) and the American Nurses Credentialing Center (AANC). These recommendations may include establishing a requisite number of continuing education hours for licensure recertification, enhancing assessments related to nutrition and nutrition-related diseases, and advocating for the integration of formal nutritional courses in accredited medical programs at both undergraduate and graduate levels.

Engaging with accreditation bodies in this manner could significantly elevate the understanding of nutrition within the healthcare sector, representing an effective strategy for facilitating meaningful change while minimizing challenges associated with state and federal regulations.

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*This study was conducted during Hurricane Helene, because of devastation from the storm several of the study participants had to remove themselves. Thank you to those that were able to participate during such a difficult time in WNC.*