

MARSHALL UNIVERSITY

Addressing the shortfall of nutrition education in traditional medical training through implementation of culinary medicine: Marshall University's relevant and unique experience



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PURPOSE

The purpose of this project was to evaluate the success of implementing nutrition education through culinary medicine (CM).

BACKGROUND

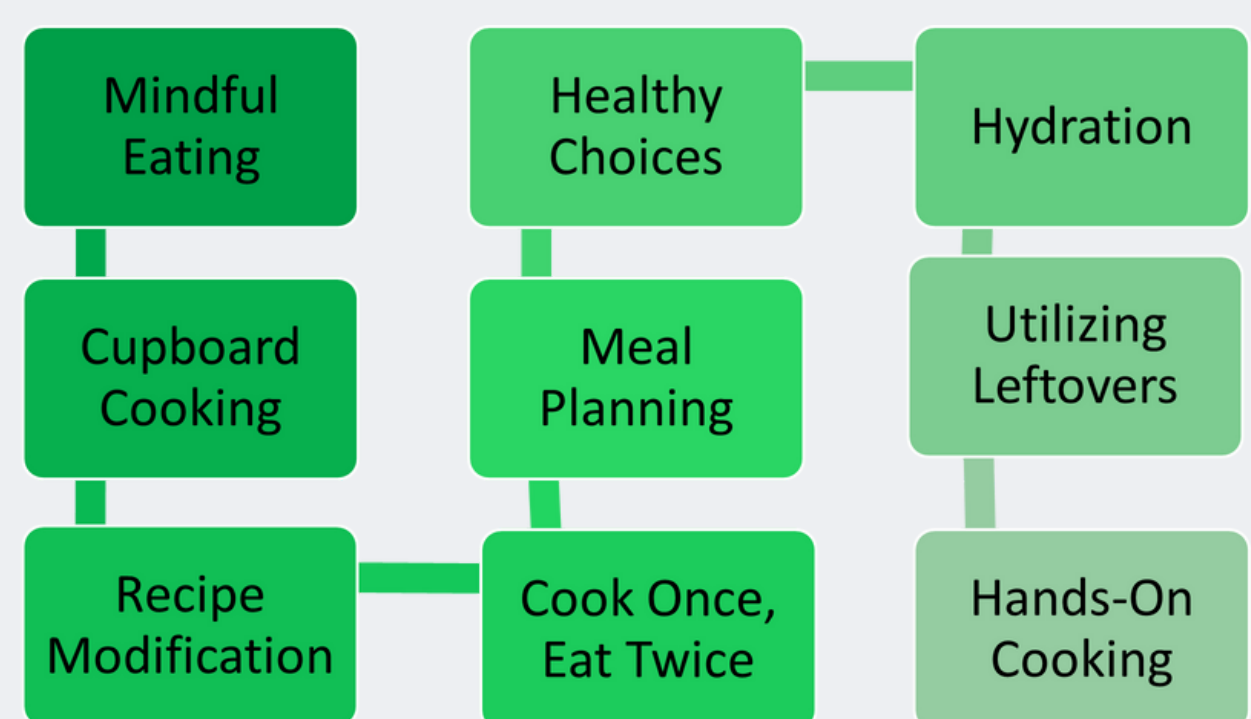
A critical step in the prevention and treatment of chronic illness is nutrition education. A congressional resolution was passed in 2022 to encourage the inclusion of nutrition education in medical curricula. The Department of Dietetics at Marshall University meets step one nutrition education policy recommendations for the Marshall School of Medicine through a unique CM program targeting first- and fourth-year medical students and physician assistant (PA) students in our teaching kitchen.

In 2022-2023, first-year medical (n=80) and PA students (n=75) received nutrition education on basic nutrition concepts and food resource management, with the goal of maintaining personal health and improving overall wellness throughout the pre-professional years of medical training. Dietetic interns designed a curriculum specific to each discipline, using hands-on cooking experiences to re-enforce CM concepts. An intensive fourth year elective, including online modules and additional cooking experience, was offered to medical students (n=20). Dietetic interns lead both programs under the guidance of RDN preceptors and cardiology faculty.

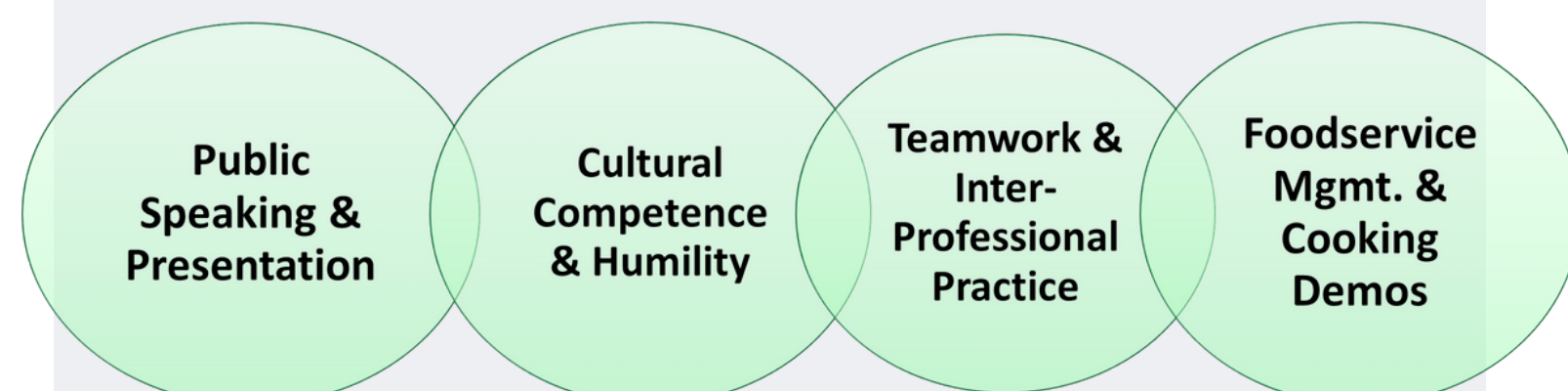
METHODS

A quantitative pre-/post-evaluation was conducted with medical students (n=69/40) and PA students (n=69/45) assessing knowledge and attitude. Ten dietetic interns were evaluated with a reflective summary and qualitative post-evaluation to assess their overall experience, improvement of skillset related to CM and nutrition education, confidence, cultural competence and humility, and leadership.

Concept Map for First Year Medical and Physician Assistance Students



Dietetic Intern Professional Practice and Leadership Skill Development



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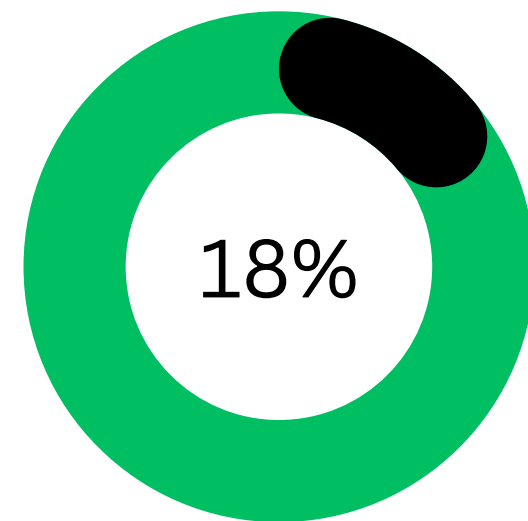
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RESULTS

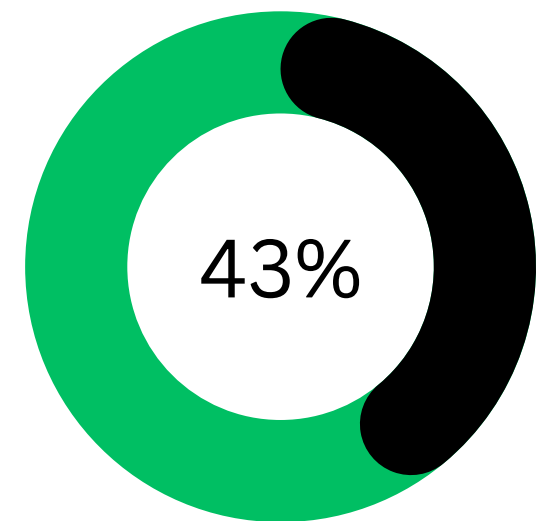
Major takeaways from dietetic interns include enhanced leadership skills, teamwork development, presentation skills, and public speaking skills. While interns indicated gaining confidence in public speaking, more practice is desired. Medical student post- surveys indicate 95% of students have knowledge related to cook once, eat twice (sustainability); 83% are practicing this skill. PA student post- surveys indicate 98% of students can identify healthy foods based on nutrient density; 95% are practicing the skill of healthy meal planning. Both medical and PA students identified ways to use CM knowledge in both their personal lives and future professional careers. All students noted appreciating the opportunity to build inter-professional relationships during their CM experiences.

“This was by far much better and more updated education on nutrition than we received earlier in medical school”

Prior Nutrition Education



Medical



PA

Students noted prior education was basic nutrition.

Students hoped to learn:

- Meal prepping
- Planning healthy meals
- Learning new recipes (quick, easy, healthy)
- Eating healthier, increasing variety, how to cook more/general cooking skills

Major takeaways for students:

- Food options for a more balanced diet
- Food resource management skills
 - cook once, eat twice
 - meal planning/prep
- Healthier cooking methods
- How RDNs enhance physician knowledge and the importance of working inter-professionally

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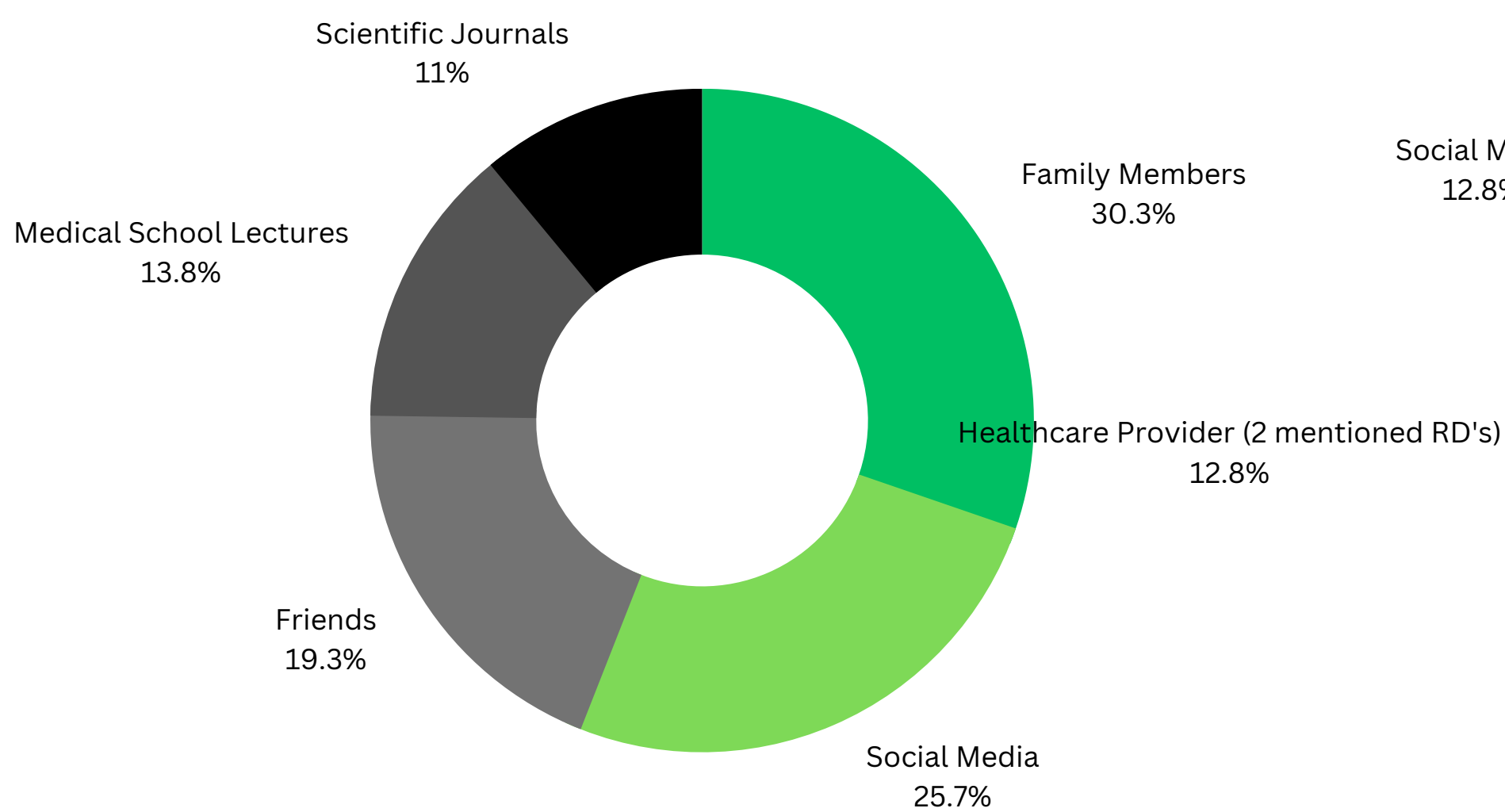


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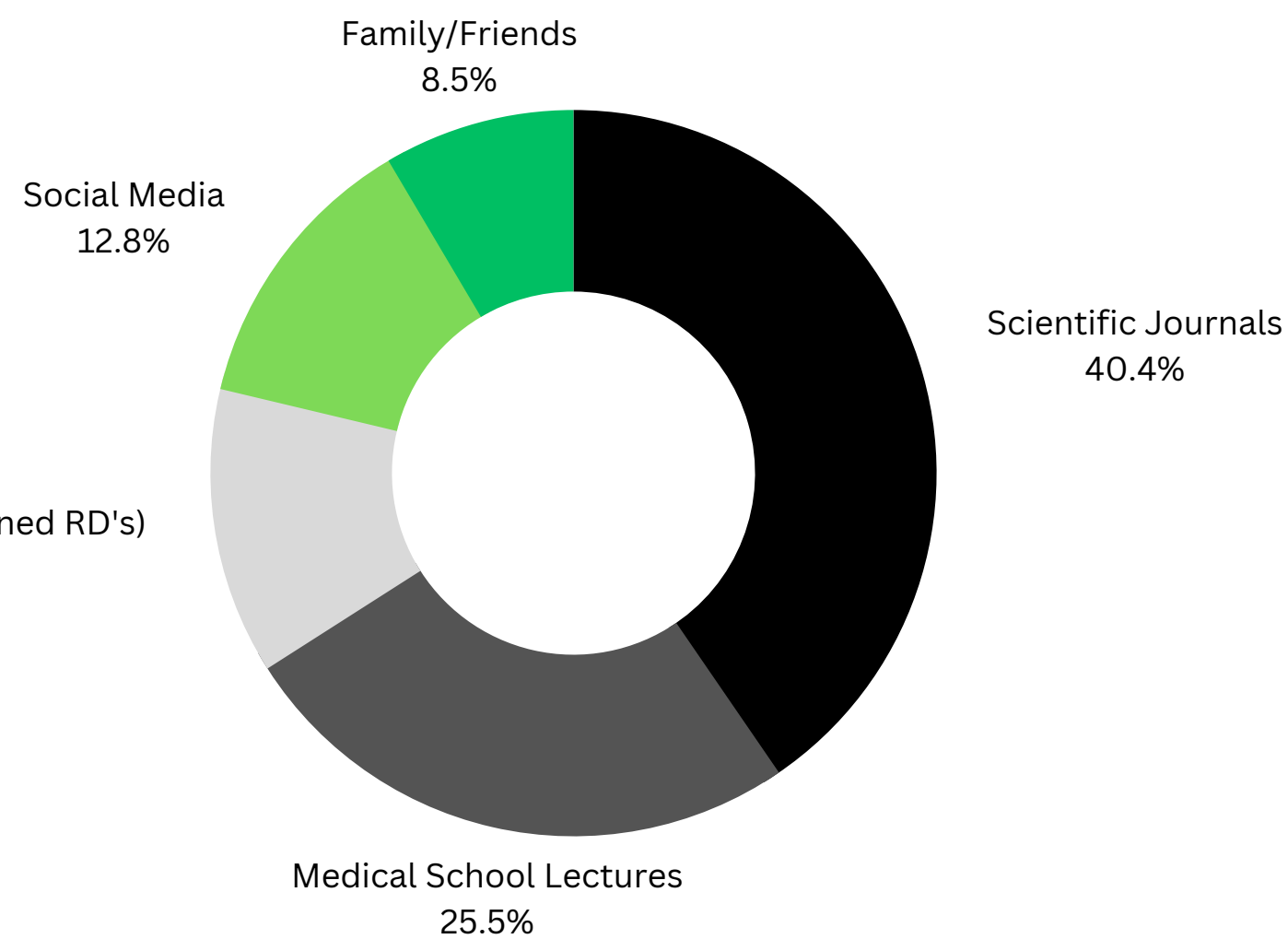
RESULTS

WHERE DO STUDENTS GET NUTRITION INFORMATION?

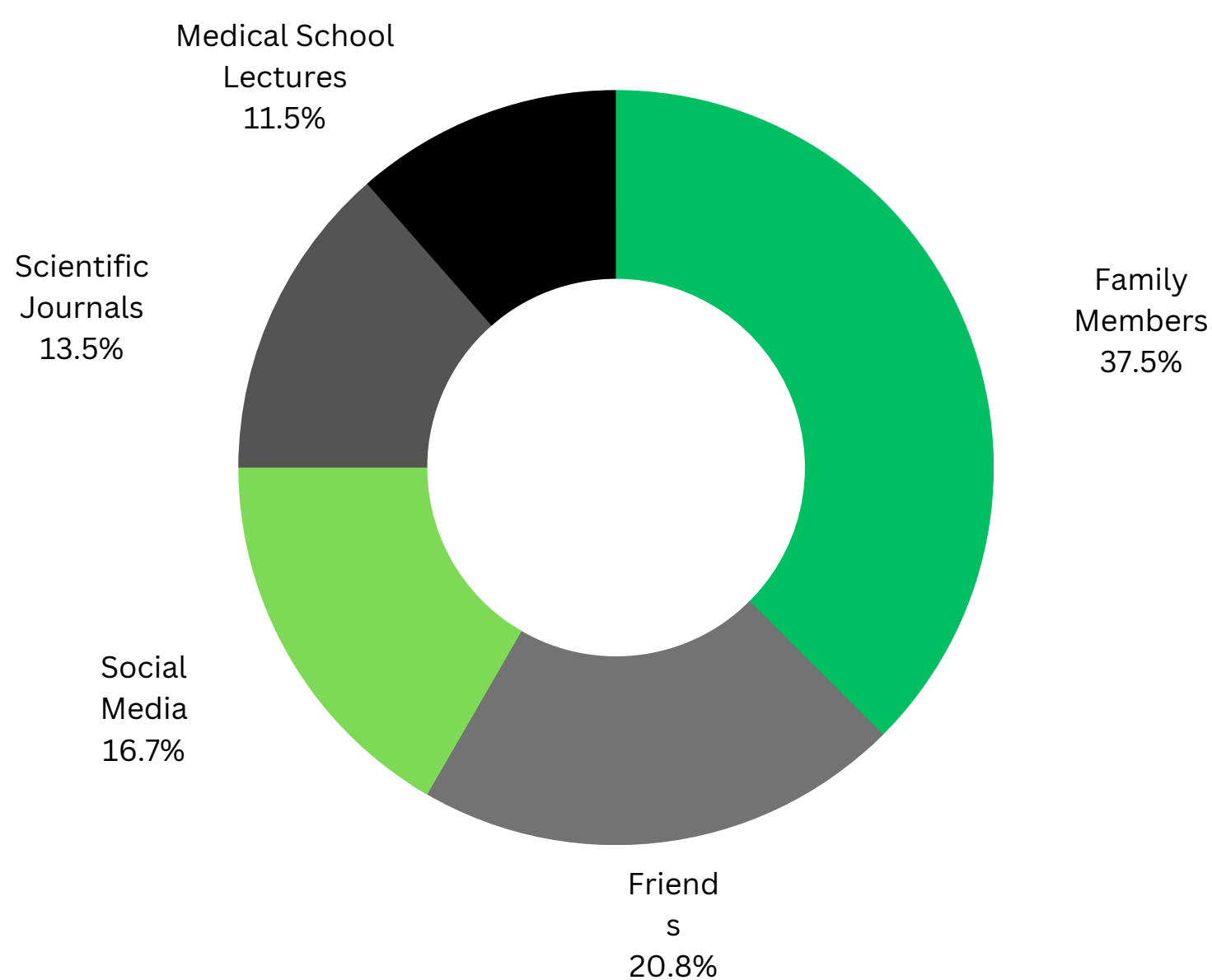
PA Student Pre-Assessment



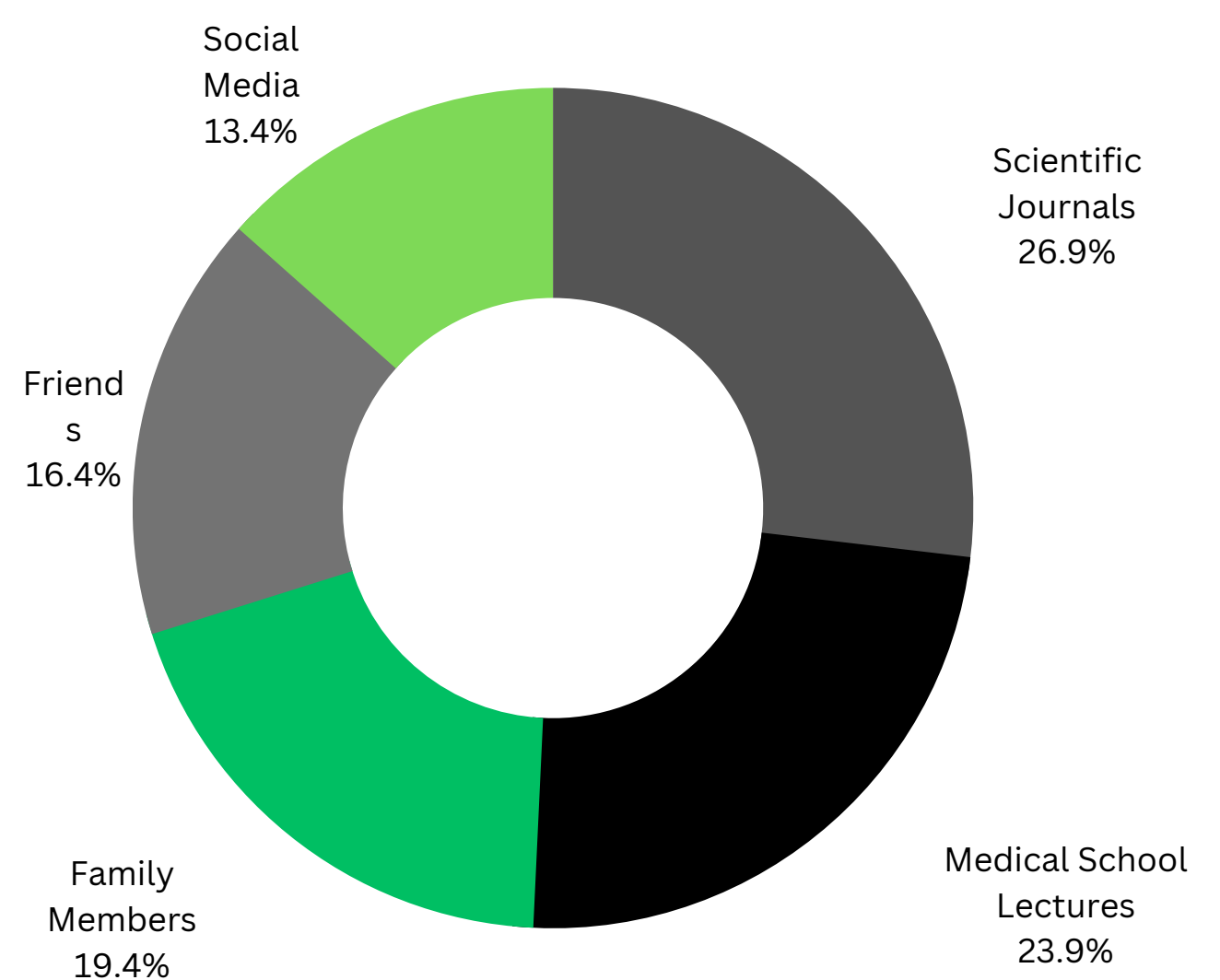
PA Student Post-Assessment



Medical Student Pre-Assessment



Medical Student Post-Assessment



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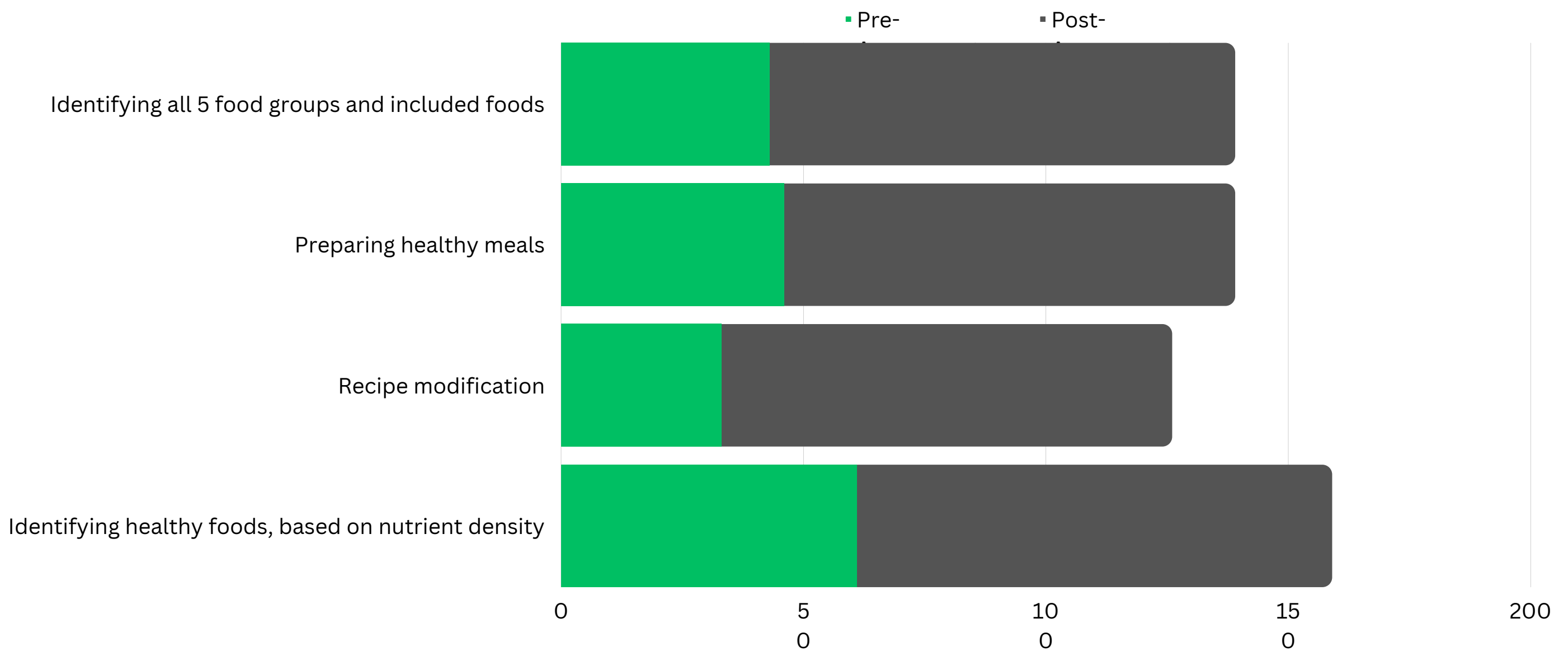
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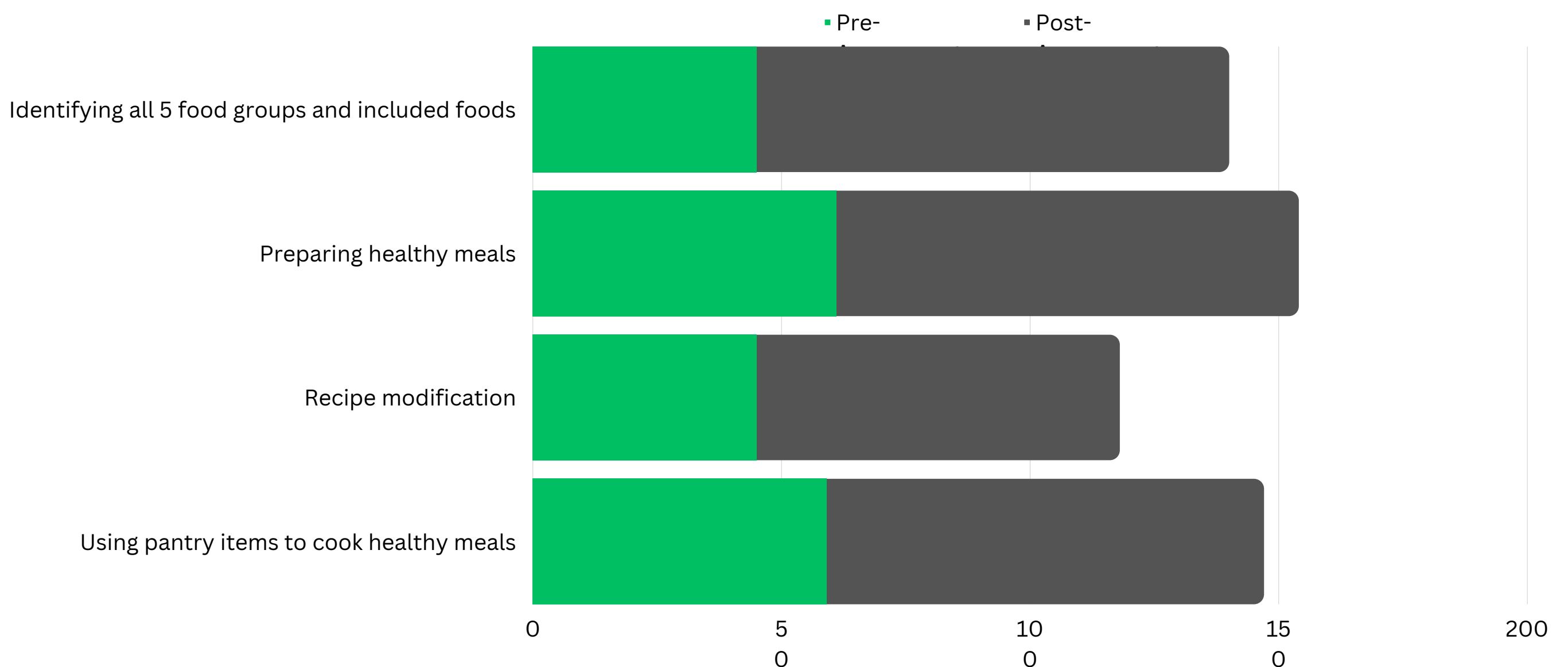
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RESULTS

PA Student Knowledge Changes Between Pre-/Post-Assessments



Medical Student Knowledge Changes Between Pre-/Post-Assessments



For more information on Marshall Dietetics, please visit our website at www.marshall.edu/dietetics.