

Interprofessional Education (IPE) between Medical and Dietetics Students: Medical Nutrition Therapy (MNT) Influencing Patient Care:

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Abstract

This IPE opportunity was a 2-hour didactic and experiential session between experienced dietetic student interns (DS), n=20, and 2nd year medical students (MS), n=46.

Objectives:

- Implement and evaluate didactic and experiential MNT for MS
- Describe rationale & mechanisms of select therapeutic diets
- Utilize DS to identify challenges, benefits, and barriers for patient care and MNT interventions

Methodology: Medical Dietetics faculty taught key components of dietary risk assessment and MNT, specifically DASH, carbohydrate-controlled, gluten free, mineral-controlled for renal disease, and national cholesterol education program (NCEP). Then, 1 DS paired with 2-6 MS and altered sample meals using evidence-based guidelines. In groups, DS reviewed details of one MNT, as specified in the Academy of Nutrition and Dietetics nutrition care manual, and each MS made suggestions for therapeutic alterations to 'meals.' Groups discussed challenges how to approach challenges such as picky eaters, food insecurity, frequent eating out, disliking cooking, family dysfunctions, and food sensitivities. At end of session, faculty debriefed the entire class with an overall discussion.

Evaluations: MS were asked to complete pre- and post-session surveys rating their abilities to alter meals, overcome barriers/compliance to diet change, recognizing parameters to assess nutrition risk, their understanding of MNT and the role of RD's. Surveys were scored using a 5-point Likert-based survey (least=1; most=5). DS were asked to give post-session feedback and comments.

Results: Analyses showed a significant change in pre and post survey scores for every question asked, with the highest increase in how to alter a sample meal to meet MNT goal, parameters to assess nutrition risk in acute care, and the role of the RD.

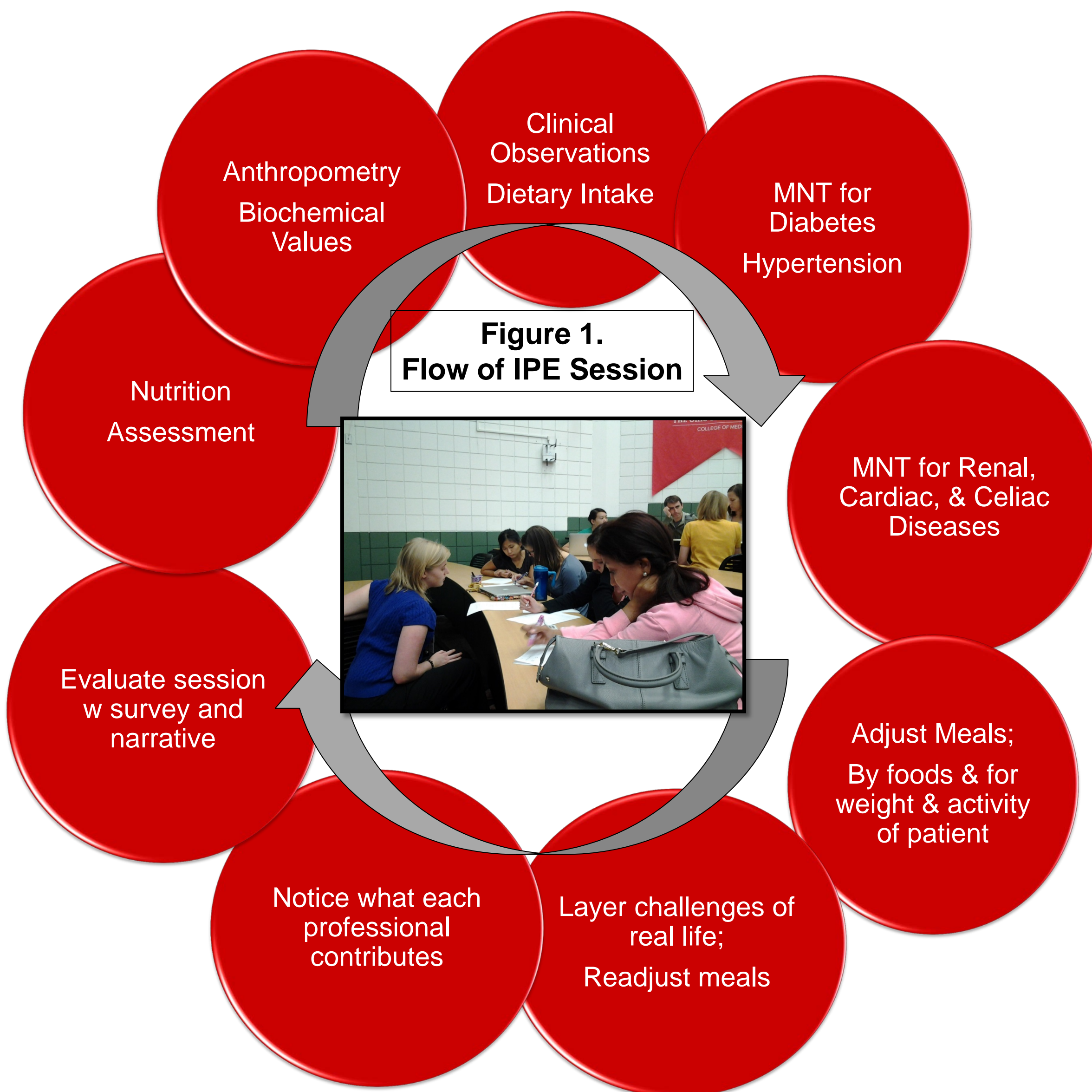
Conclusion: MS rated the IPE session highly for improving their knowledge and confidence to alter meals in accordance to MNT guidelines, address patient challenges, and work alongside RD's. The session also underscored the role of RDs in medical care. Further studies should be conducted to assess the long-term impact of such MS/DS IPE sessions on patient care.

Background & Objectives

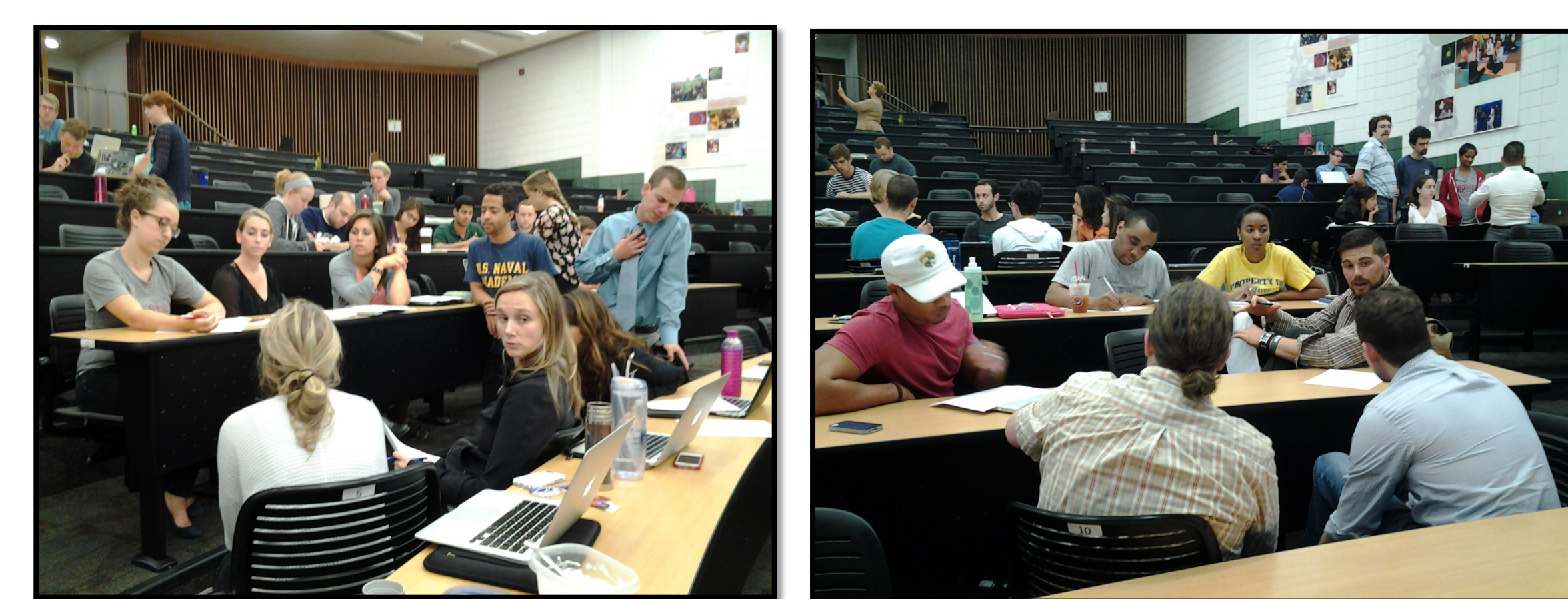
- The OSU Medical School LSI curriculum now intentionally incorporates education on nutrition, behavior, obesity, & social determinants of health as they impact disease.
- While current lectures and e-learning modules provide detail on nutrient biochemistry, RDA/DRI recommendations, & nutrient deposition, there is limited training of how to use food and diet as therapy, especially for chronic conditions.
- A pilot IPE session was conducted last year with a post-session survey. This year we added an additional pre-session survey and gave more information on nutrition risk in acute care during the dietetics faculty lecture.
- Our objectives were operationalized by:
 - Describing nutrition assessment with markers of anthropometry, biochemistry, clinical observation, and dietary intake.
 - Describing rationale and mechanisms of common nutrition therapies.
 - Teaching key aspects of evidence-based MNT for diabetes, hypertension, renal, celiac, and cardiovascular conditions using the Academy of Nutrition and Dietetics Nutrition Care Manual.
 - Creating an interactive and personalized IPE environment where MS adjusted sample meals to fit one of 5 therapies while coached by the DS actively working in MNT for the past year.
 - Creating an interactive opportunity for all students to consider additional strategies when faced with barriers & challenges anchored in social determinants of health (picky eaters, food insecurity, too busy to cook, solely fast food eating, family dysfunction, food sensitivities).

Methods

- Pre-session survey administered
- Two 30 minute didactic lectures on Nutrition Assessment and MNT
- IPE experience with MS groups led by DS to adjust meals based on and assigned therapy and address real life patient challenges
- Post-session survey administered



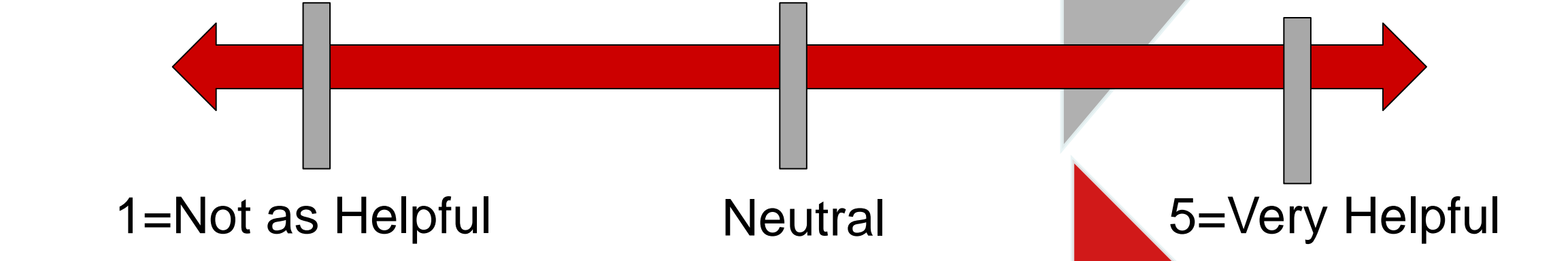
MS-DS Student IPE Collaborative Group Discussions



Results

Figure 2. Post Survey Questions and Scale

- Rate how helpful interdisciplinary session was for learning:
- Q1: Value of patient past lifestyle successes and challenges
 - Q2: Barriers & compliance with alterations of diet
 - Q3: How to alter a sample meal to meet MNT goal
 - Q4: Parameters to assess nutrition risk in acute care
 - Q5: The role of the RD



- Rate your confidence in ability to:
- Q6: Make correct diet or food suggestions
 - Q7: Provide suggestions to overcome barriers
 - Q8: Work along side RD to encourage patients with practical solutions

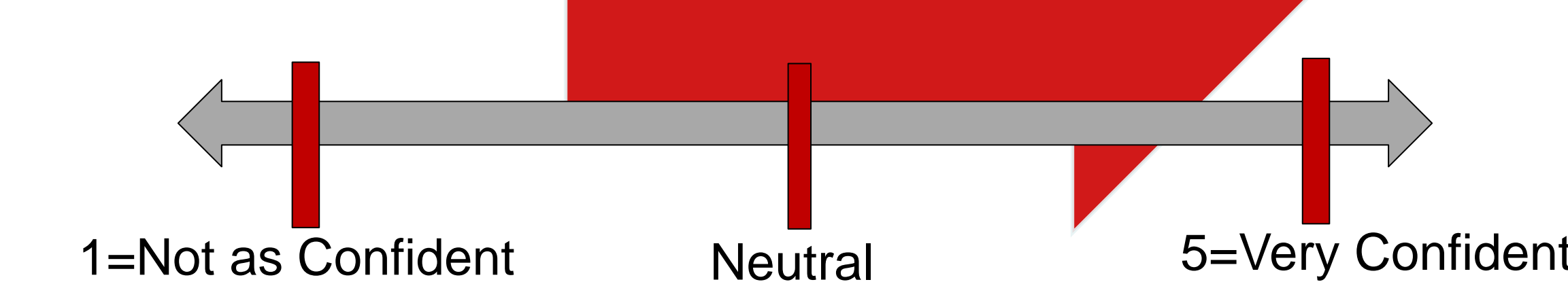


Table 2. Survey Results

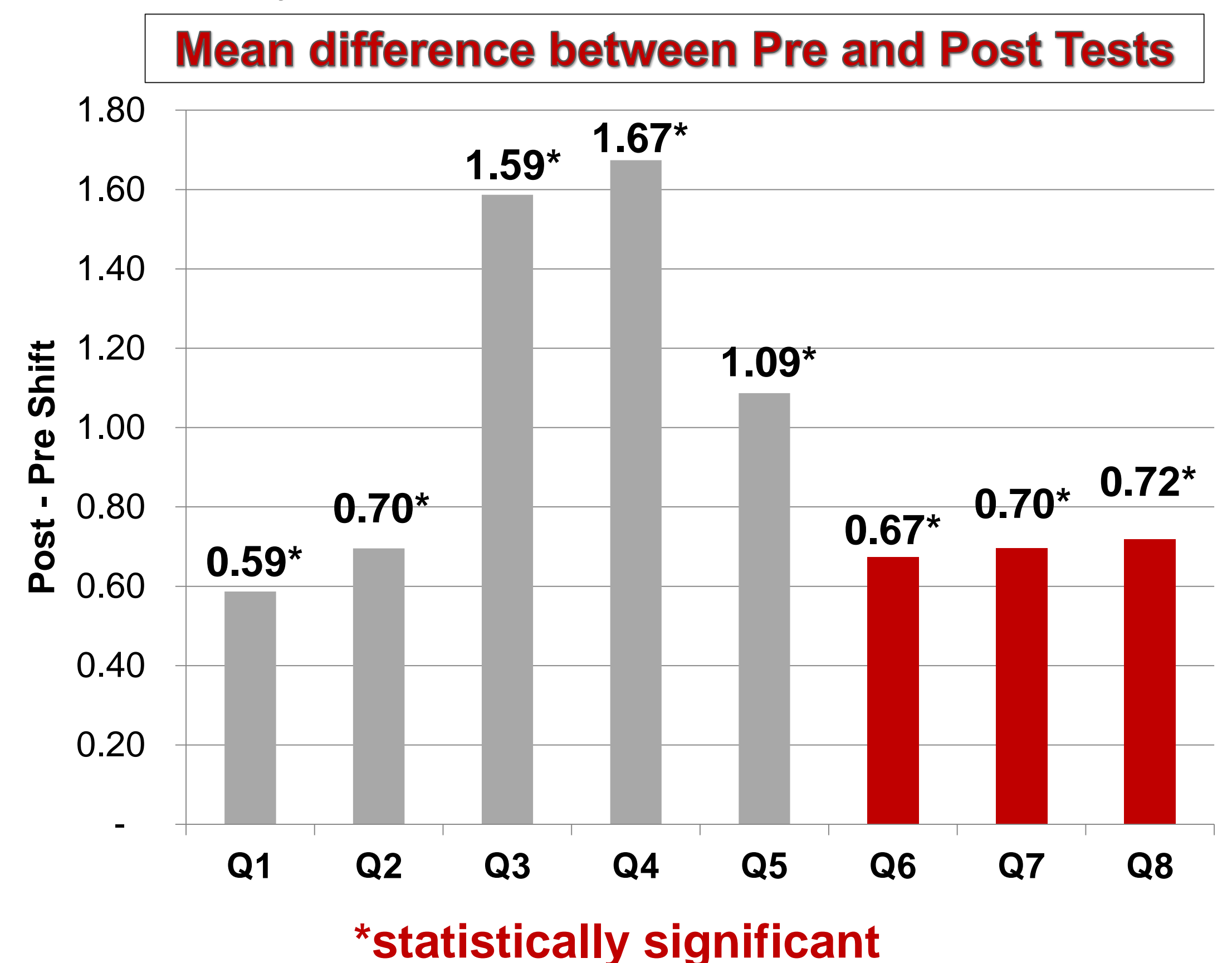


Table 3. DS Narrative of IPE Session

- Learning that Food is Medicine**
- "Dietary concepts were new to most of the medical students. They probably would not use nutrition intervention strategies into treatment because of general lack of knowledge."
 - "I realized that the students were not as well versed on MNT and wanted the information."
- Bring all the professionals on the team**
- "It was fun to collaborate and recognize how much more we could help a client by being well rounded and working together."
 - "It was helpful to show that we are a valuable resource than just looking at it from one perspective."
- In General**
- "Great experience to deliver knowledge. Being involved in activities helps build confidence and professional abilities."
 - "It was helpful to show that we are a valuable resource to the medical students and that we NEED to work as a team."

Discussion and Conclusions

- This MS/DS IPE session provided a dynamic & engaging experience between these professional students & departments.
- The objectives successfully achieved for MS were to:
 - Engage in learning nutrition assessment & therapy.
 - Experience a personalized approach to learning and applying one of the five common nutrition therapies.
 - Share ideas and strategies to address the real life challenges and barriers that influence food intake and availability.
- Paired Sample t-Test analysis at a 5% level showed a significant pre- and post-survey change for every question asked. The questions with the highest increase were helpfulness in:
 - How to alter a sample meal to meet MNT goal,
 - Parameters to assess nutrition risk in acute care, and
 - The role of the RD.
- The session had an overwhelmingly significant effect in communicating the importance of nutrition in medicine and the role of the RDs to MS.
- Narrative feedback from DS indicated enthusiasm for this IPE session and gratefulness to be recognized as vital to optimum care of patients.

Future Directions

- Repeat session with meal examples that include greater diversity of eating behaviors and cultural environments
- Assess if session has long-term impact by administering the post survey to the same group of medical students in their 3rd and 4th years..