Quality of Diets Consumed by Individuals At-Risk of Suicide

Diane M. DellaValle, PhD, RDN, LD1, Ashley M. Galloway, MS, RD, LD1, Bernadette P. Marriott, PhD1,2, and the BRAVO Group*1,2

1Department of Medicine, Division of Gastroenterology / Hepatology, 2Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina (MUSC), Charleston, SC

INTRODUCTION & OBJECTIVE

The Better Resiliency Among Veterans and Non-Veterans with Omega-3s (BRAVO) study is a double-blind, randomized controlled trial being conducted to evaluate the efficacy of omega-3 fatty acid supplementation to reduce suicide risk among individuals at-risk. The objective of this preliminary analysis was to assess the baseline dietary intake of a cohort of study participants (SP) enrolled in the BRAVO study. Methods: Twenty-four hour (24h) dietary recall data was collected at baseline using USDA's Automated Multiple Pass Method (AMPMP). SP that completed 2-24h recalls were included in this analysis (n=26, 96%). Anthropometric measurements were obtained, and 24-hour recall data was analyzed for macro- and micronutrients using USDA's Food Composition Database. SP were grouped as alcohol (ETOH) reporters and non-reporters. Data are reported as Means ± SD. RESULTS: While there were no differences in Energy or main Macronutrient intake (CHO, PRO, FAT) between ETOH-Reporters and Non-Reporters, ETOH reporters reported higher intakes of cholesterol (p=0.02), choline (p=0.02), selenium (p=0.04), and lower intakes of caffeine (p=0.05) compared to Non-Reporters. Preliminary analysis of BRAVO study enrollees suggest poor dietary quality and variety. These individuals are not meeting the Dietary Guidelines for Americans (DGAs) MyPlate recommendations for Whole Grains, Vegetables or Fruits (Figure 4). Individuals reporting ETOH consumption have the additional hurdle of imbalanced macronutrient intake, as ETOH provides "empty" calories (7 kcal/g). Improving nutrition status in all individuals at-risk of suicide and related behaviors is critical to recovery, and should be part of any primary assessment by the multidisciplinary mental health care team.

SUMMARY AND CONCLUSIONS

Figure 1. USDA's AMPM and an Example 24-h recall

Figure 2. Macronutrient Intakes (% Total Kcal)

Figure 3a and b. Micronutrient Intakes (% Dietary Reference Intakes, DRIs)

Table 1. Alcohol Intakes of ETOH-Reporters and of the Total Sample

<table>
<thead>
<tr>
<th></th>
<th>ETOH-Reporters (n=17)</th>
<th>Total Sample (n=26)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETOH intake (g/d)</td>
<td>29.9±43.8</td>
<td>19.6±38.0</td>
</tr>
<tr>
<td>Standard drink equivalent^4</td>
<td>2.1</td>
<td>1.5</td>
</tr>
<tr>
<td>ETOH kcal/d</td>
<td>209</td>
<td>137</td>
</tr>
<tr>
<td>ETOH % Total Kcal/d</td>
<td>8.4</td>
<td>5.5</td>
</tr>
</tbody>
</table>

While there were no differences in Energy or main Macronutrient intake (CHO, PRO, FAT) between ETOH-Reporters and Non-Reporters, ETOH reporters reported higher intakes of cholesterol (p=0.02), choline (p=0.02), selenium (p=0.04), and lower intakes of caffeine (p=0.05) compared to Non-Reporters.

ACKNOWLEDGEMENTS / ACKNOWLEDGMENTS

This work was supported by the Department of Defense (award # W81XWH-13-2-0015), through the Congressionally Directed Medical Research Programs and the Defense Medical Research and Development Program. Data were analyzed for macro- and micronutrients using USDA's Food Composition Database. SP were grouped as alcohol (ETOH) reporters and non-reporters (n=17) or non-reporters (n=9), based on their ETOH recall on the Timeline Follow-Back interview. Data were reported as Means ± SD. ANOVA was used to test differences between ETOH reporters and non-reporters, with p<0.05 as statistically significant.

REFERENCES


Quality of Diets Consumed by Individuals At-Risk of Suicide

Diane M. DellaValle, PhD, RDN, LD\textsuperscript{1}, Ashley M. Galloway, MS, RD, LD\textsuperscript{1}, Bernadette P. Marriott, PhD\textsuperscript{1,2}

\textsuperscript{1}Department of Medicine, Division of Gastroenterology and Hepatology, Nutrition Section; \textsuperscript{2}Department of Psychiatry and Behavioral Sciences, Military Division

Introduction: The Better Resiliency Among Veterans and Non-Veterans with Omega-3s (BRAVO) study is a double-blind, randomized controlled trial being conducted to evaluate the efficacy of omega-3 fatty acid supplementation to reduce suicide risk among individuals at-risk. The objective of this preliminary analysis was to assess the baseline dietary intake of a cohort of study participants (SP) enrolled in the BRAVO study. Methods: Twenty-four hour (24h) recall dietary intake data was collected at baseline using USDA’s Automated Multiple Pass Method (AMPM). SP that completed 2-24h recalls were included in this analysis (n=26). Data were analyzed for macro- and micronutrients using USDA’s Food Composition Database. Results: Body Mass Index (BMI) of SP was 28.8±5.8 kg/m\textsuperscript{2}, with 73\% of SP being overweight or obese. Average reported energy intake (EI) over 2d was 2494±682 kcal. Average macronutrient distribution (%kcal) of the sample was 46\% carbohydrate, 34\% fat, 15\% protein and 6\% alcohol. Of those SP reporting alcohol consumption (n=17), alcohol intake averaged 29.9±43.8g/d (or~2.1 standard drinks/d), equivalent to 209 kcal or 8.4\% of total EI. On average, SP met or exceeded the Dietary Reference Intakes (DRIs) for the B-vitamins, calcium, iron, zinc, selenium and sodium. Intake of vitamins E, A, C, D, K, choline and potassium were below DRIs. Compared to non-reporters, SP reporting alcohol consumption consumed more cholesterol (p=0.04), choline (p=0.02) and selenium (p=0.04), and less caffeine (p=0.05). Conclusions: These preliminary data suggest poor dietary quality and variety in SP enrolled in the BRAVO study, with differences between alcohol reporters and non-reporters. Improving nutrition status in all individuals at-risk of suicide and related behaviors is critical to recovery, and should be part of any primary assessment by the mental health care professional.