**Climate, Food Systems, Diet, Nutrition and Health (Poster Session)**

# (P19-013-24) How to Use Ottoman Pilafs in the Diet?

Monday, July 1, 2024 11:45 AM – 12:45 PM CT Location: Poster Board 93

## Presenting Author(s)



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**Disclosure(s):**

**Osman Güldemir, PhD**: No relevant financial relationship(s) with ineligible companies to disclose.

**Objectives:** The aim of the study is to analyze the energy and nutritional value of Ottoman pilafs and compare them with the recommendations of the Nutrition Guide Specific to Türkiye.

**Methods:** Fifteen of the Ottoman pilafs, which were standardized by applying the *An Adaptation Model for Historical Dishes*, were determined by five experts using the expert interview technique, one of the qualitative research methods. Then, portions of these recipes were analyzed for energy and nutritional value using the Nutrition Information System. The data obtained were proportioned to the reference values in the Nutrition Guide Specific to Türkiye and the percentages of meeting the daily requirement of an adult woman and man were calculated. How it can be used in diets has been evaluated based on the percentages and other values presented.

**Results:** Ottoman pilafs are prepared by roasting, releasing, boiling and steaming techniques and there are many varieties. Selected Ottoman pilafs have an average energy content of 505 kcal and are rich in carbohydrates, B group vitamins, zinc and phosphorus. It meets an average of 30% (female) and 23% (male) of an adult's daily energy needs. It provides 40% of the daily B12 requirement, 29% (female) and 25% (male) of vitamin C, 55% (female) and 47% (male) of vitamin A, and 29% of phosphorus. It meets 50% (female) and 40% (male) of the daily zinc needs and 30% of phosphorus.

**Conclusions:** The "invention of tradition", defined by Hobsbawm with various examples, can actually be discussed in terms of the revival of culinary traditions. It is possible for individuals who maintain their ties with their roots, who are happy to include the traditions and customs of their ancestors into their lives, or who, on the contrary, live in a foreign culture and have sympathy for the Ottoman cuisine, can also include these pilafs in their diet. When the energy and nutritional values of selected pilafs are examined, it is concluded that it would be suitable for healthy diets to include them in meals with different accompaniments by making appropriate portions.

**Funding Sources**: None

protein and fat can lead to improvement, a significant result since most people do not have access to ground truth amounts.

**Funding Sources:** This work was supported by the National Science Foundation award IIS #XXXXXXX.

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## P19-011-24 Nourishing Progress: Bridging Eating Habits and Health Concerns to Pave the Way for Achieving the Sustainable Development Goals

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[2] *Escola de Engenharia Mauá, Brazil*

**Objectives:** Dietitians have a role in leading strategies to support the achievements of the Sustainable Development Goals (SDGs). The SDGs are a call for action to address a range of social needs, including ending all forms of malnutrition by taking special care of populations experiencing low-income. It is critical to understand these group's health values and consumption habits, so the nutrition interventions can be successful, especially in terms of adherence. This study aims to investigate the food consumption profile and health concerns of this population, to guide the design of successful nutrition interventions to support the local and global achievement of the SDGs targets.

**Methods:** A multicentric study was conducted using quantitative and qualitative techniques. For the qualitative research, trained interviewers used structured questionnaires to gather in-depth information about eating behaviors. The quantitative research was based on a systematic collection of data to gather knowledge about food prevalence in meals and health concerns. The study engaged 452 people equally distributed in 3 state capitals of Brazil.

**Results:** The prevalence of food items that made up the composition of meals were rice (93%), bread (86%) and chicken (89%). The most common health concerns were lack of energy (25%), overweight (24%), headache (23%) and visual impairment (21%). On the other hand, what the population most valued in terms of health was physical energy (66%), growth and development of kids (54%), physical performance (54%), stress management (47%), strong immunity (43%), better nutrition (41%), heart health (40%), memory enhancement (35%), hair and nails appearance (32%), sleep better (30%), eye health (21%) and strong bones (21%).

**Conclusions:** Strategic actions to accelerate the achievement of SDGs are require not only to fill the nutrient gaps but also to guarantee the adherence, which relies on a clear communication of its benefits. This research concluded that rice can be an excellent vehicle for fortification with vitamins and minerals, as rice is prevalent in 93% of the studied population meals. Dietitians can back up the intervention by communicating that consuming the fortified rice in family meals can support the individuals to address their main health values, such as physical energy and proper child development.

**Funding Sources:** Supported by DSM.

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## P19-012-24 Transitioning to Healthy Diets Within Planetary Boundaries: Optimized Dietary Scenarios Based on Current Eating Patterns in the Netherlands

Alessandra C Grasso [1], Corné van Dooren [2], Judith Groen [3], Carolina Carrillo Diaz [3], Lisanne de Weert [3], Lana Liem [3]

[1] *Mérieux NutriSciences | Blonk, United States*
[2] *WWF-NL, Netherlands*
[3] *Mérieux NutriSciences | Blonk, Netherlands*

**Objectives:** Present dietary patterns do not align with established nutritional recommendations and surpass the environmental limits set for a sustainable food system. In this study, we aimed to identify diets among Dutch adults that satisfy nutritional requirements and are within planetary boundaries, while minimizing changes from the current diet.

**Methods:** Starting from the habitual diet of Dutch men and women (aged 18-50y) derived from the latest Dutch National Food Consumption Survey, mathematical optimization was used to model diet scenarios with minimized departure from habitual intake. The environmental impacts of representative Dutch foods were adjusted to align with the scope of the planetary boundaries as defined by the EAT-Lancet Commission and to incorporate forecasted improvements in 2030 and 2050. Constraints were applied on nutrients and environmental impacts up to food production (greenhouse gas emissions, blue water use, cropland use, phosphorus application and surplus nitrogen). Furthermore, an upper constraint was established on biodiversity loss (or damage to ecosystems as defined by ReCiPe 2016). Four scenarios were considered in which we modelled different eating patterns, i.e., food-based dietary guidelines, flexitarian, vegetarian and vegan, relaxing constraints where needed to get solutions.

**Results:** Staying within the planetary boundaries and meeting nutritional guidelines require a shift in protein source from 60% animal to 60-70% plant-based. The needed changes in intake point towards reductions in meat, fats/oils, and cakes/biscuits and increase in vegetables, fruits, legumes and nuts. While the vegetarian and vegan diets resulted in the largest reductions in environmental impacts except blue water use, they did not meet all nutritional requirements given the set of food products (docosahexaenoic acid low in both vegetarian and vegan diets, and vitamins B2 and B12 and iron in vegan diet).

**Conclusions:** Healthy diets within planetary boundaries based on Dutch eating patterns require a substantial change in protein source. Vegetarian and vegan diets require alternative food products to fill the nutritional gaps while staying within planetary boundaries. These results contribute to the development of future environmentally sustainable dietary guidelines for the Netherlands.

**Funding Sources:** Wereld Natuur Fonds (WWF-NL).

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## P19-013-24 How to Use Ottoman Pilafs in the Diet?

Osman Güldemir [1]

[1] *Anadolu University, Turkey*

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**Methods:** Fifteen of the Ottoman pilafs, which were standardized by applying the *An Adaptation Model for Historical Dishes*, were determined by five experts using the expert interview technique, one of the qualitative research methods. Then, portions of these recipes were analyzed for energy and nutritional value using the Nutrition Information System. The data obtained were proportioned to the reference values in the Nutrition Guide Specific to Türkiye and the percentages of meeting the daily requirement of an adult woman and man were calculated. How it can be used in diets has been evaluated based on the percentages and other values presented.

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**Conclusions:** The "invention of tradition", defined by Hobsbawm with various examples, can actually be discussed in terms of the revival of culinary traditions. It is possible for individuals who maintain their ties with their roots, who are happy to include the traditions and customs of their ancestors into their lives, or who, on the contrary, live in a foreign culture and have sympathy for the Ottoman cuisine, can also include these pilafs in their diet. When the energy and nutritional values of selected pilafs are examined, it is concluded that it would be suitable for healthy diets to include them in meals with different accompaniments by making appropriate portions.

**Funding Sources:** None.

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## P19-014-24 The Effect of Rising Food Prices on the Dietary Diversity of Meals and Consumption Patterns: A Case Study of the Students of Dhaka University in Bangladesh

Shimul Gupta [1], Karen Batjes [1]

[1] *Van Hall Larenstein University, Netherlands*

**Objectives:** The research aims to investigate the effect of the increasing food prices on the dietary diversity of meals and consumption patterns of Dhaka University students for accessibility of students to adequate food.

**Methods:** Dhaka University's canteen was selected for its huge student population utilizing a qualitative case study design, the research employed (KII) interviews, focus group discussions, and observations to gain insights into students' experiences and coping strategies of increasing food costs. Purposive sampling, employing the snowball method, involved for selecting students for gender balance. Triangulating data from 22 respondents enhanced research validity. Primary data included semi-structured interviews with 20 students,2 key informants—the canteen manager and a university lecturer. Observations estimated food availability& food consumption score (FCS) that assessed food accessibility, offering insights into quantity and quality.

**Results:** The major research findings highlight multifaceted challenges in students' dietary patterns due to rising food prices including political, economic factors- market competition, inflation, and global food prices. Challenges faced by students encompass increasing food costs, declining quality, financial constraints, organizational issues, and lack of awareness. The variety of available foods is limited, leading to shifts in dietary choices and consumption patterns. Students resort to cost-cutting measures, such as reducing portion sizes and relying on snacks due to financial constraints impacting students' monthly budgets, limiting dietary diversity.

**Conclusions:** The study uncovers the impact of soaring food prices on Dhaka University students' dietary diversity. Economic, along with an inadequate distribution system, contribute to high meal costs. Students face challenges in maintaining a balanced diet due to financial constraints, organizational complexities is influenced by student politics, restricts access to inexpensive food by setting high prices push students towards less nutritious, hindering their dietary choices.

**Funding Sources:** Global Alliance for Improved Nutrition, a leading non-profit, organization aims in transforming food systems found interest in gaining insight into this and this research is funded by the organization.

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## P19-015-24 The Effects of Watermelon Seed Consumption on Postprandial Glucose, Blood Pressure, and Gastrointestinal Comfort Perception

Mee Young Hong [1], Michaela Renfro [1], Andrew Gehr [1], Ashley Gubicza [1], Abby Jimenez [1], Nasara Knight [1]

[1] *San Diego State University, United States*

**Objectives:** Watermelon seeds are rich sources of protein, fat vitamins, minerals and fiber as well as phytochemicals. In spite of the various potential nutritional properties, the watermelon seeds are often discarded. There is also limited research on effects of watermelon seed consumption on health in human subjects. The objective of this study was to determine the effects of watermelon seed consumption on blood pressure, postprandial glucose, gastrointestinal response (GI), and bowel habits.

**Methods:** This study was conducted using a two trial, randomized crossover study design. Study participants (n=25; mean age 25.6 $\pm$ 6.6 years; BMI 24.2 $\pm$ 4.0 kg/m$^2$) consumed watermelon seeds (170 kcal) or isocaloric unsalted pretzels (control) with a four-day washout. Participants completed questionnaires on gastrointestinal (GI) discomfort at baseline and 20, 40, 60 and 80 minutes post consumption using a visual analog scale. Bowel movement frequency was recorded each trial on the day before the trial and the trial day. Blood pressure was measured at baseline and twice every 20 minutes after consumption for 80 minutes. Blood glucose was measured at baseline, 40 and 80 minutes.

**Results:** Both watermelon seed and pretzel snacks demonstrated no significant change on GI discomfort (nausea, cramping, distension, or flatulence) but interestingly, reduced bowel movement frequency (P=0.006). Both snacks lowered systolic and diastolic blood pressure (P< 0.001). Watermelon seed consumption did not increase postprandial glucose while pretzel

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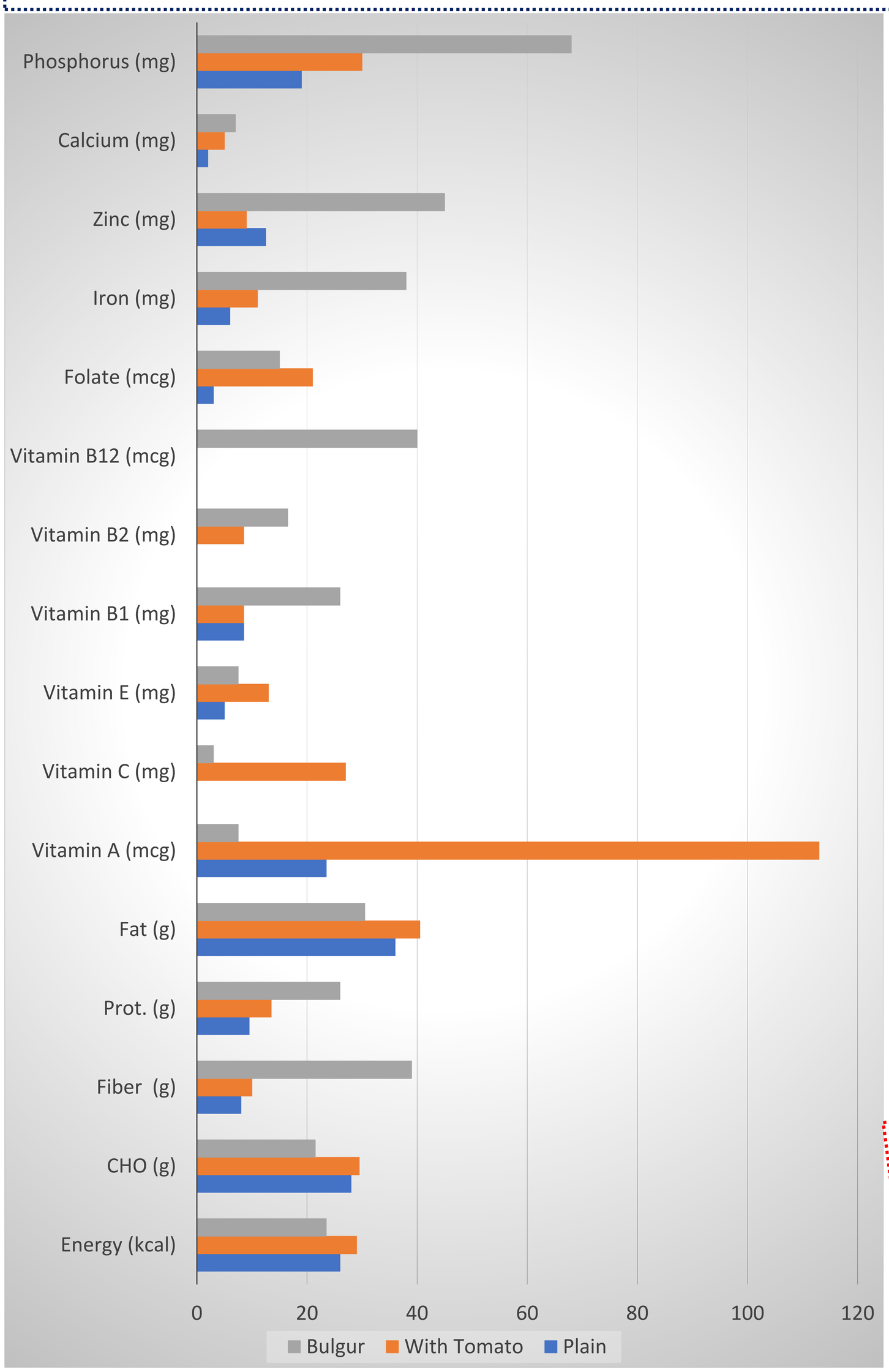
# P19-013-24 How to use Ottoman pilafs in the diet?

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Pilafs were very important in the **Ottoman Empire (1299-1923)**. So much so that it was frequently included in the diet at late morning meals, ambassadors' tables, banquets and daily meals.

There were **55** different types of pilaf known in the classical period Ottoman cuisine and **30** different types of pilaf in the modernizing period Ottoman cuisine.



Bulgur



With Tomato



Plain

OK — PHOTO / RECORD
BY NC SA