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Culturally Sensitive Carbohydrate Sources for Nepalese with Diabetes or Prediabetes

Rachel Bombardier

Larner College of Medicine at the University of Vermont

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Culturally sensitive carbohydrate sources for Nepalese with diabetes or prediabetes

Rachel Bombardier, MS3

Family Medicine Clerkship (rotation 2): June 2022

Project Mentor: Michelle Dorwart, MD

Location: Community Health Centers of Burlington

617 Riverside Ave, Burlington, VT

Problem identification

- US Committee for Refugees & Immigrants (USCRI) has enabled over 8,000 refugees to start new lives in Vermont since 1980 (1)
- 17% of all patient visits at Community Health Centers of Burlington (CHCB) are interpreted-assisted (2)
- 8% of all CHCB patients speak Nepalese as their primary language (2)
- Though interpretive services are utilized, there are gaps in effective health education amongst Nepalese patients
- Dietary recommendations is often challenging due to cultural differences & food access

Area Health Education Center (AHEC) focus areas

- Cultural competency
 - Nepalese diet & food culture
- Social determinants of health
 - Social & community context
 - Neighborhood & built environment

Public health cost & considerations

- More than 34 million people in the US have diabetes (3)
 - ~46,377 people in VT have diagnosed diabetes (8.8% of adult population)
 - 14,000 in VT have diabetes but do not know it
 - 165,000 people in VT with prediabetes (33.6% of adult population)
- Diagnosed diabetes costs ~ \$520 million in VT each year (4)
- Serious complications include heart disease, stroke, amputation, end-stage kidney disease, blindness, & death
- Making healthy food choices is one lifestyle change individuals with prediabetes & type 2 diabetes can do to reduce onset & severity of complications, improve quality of life, & lower health care costs

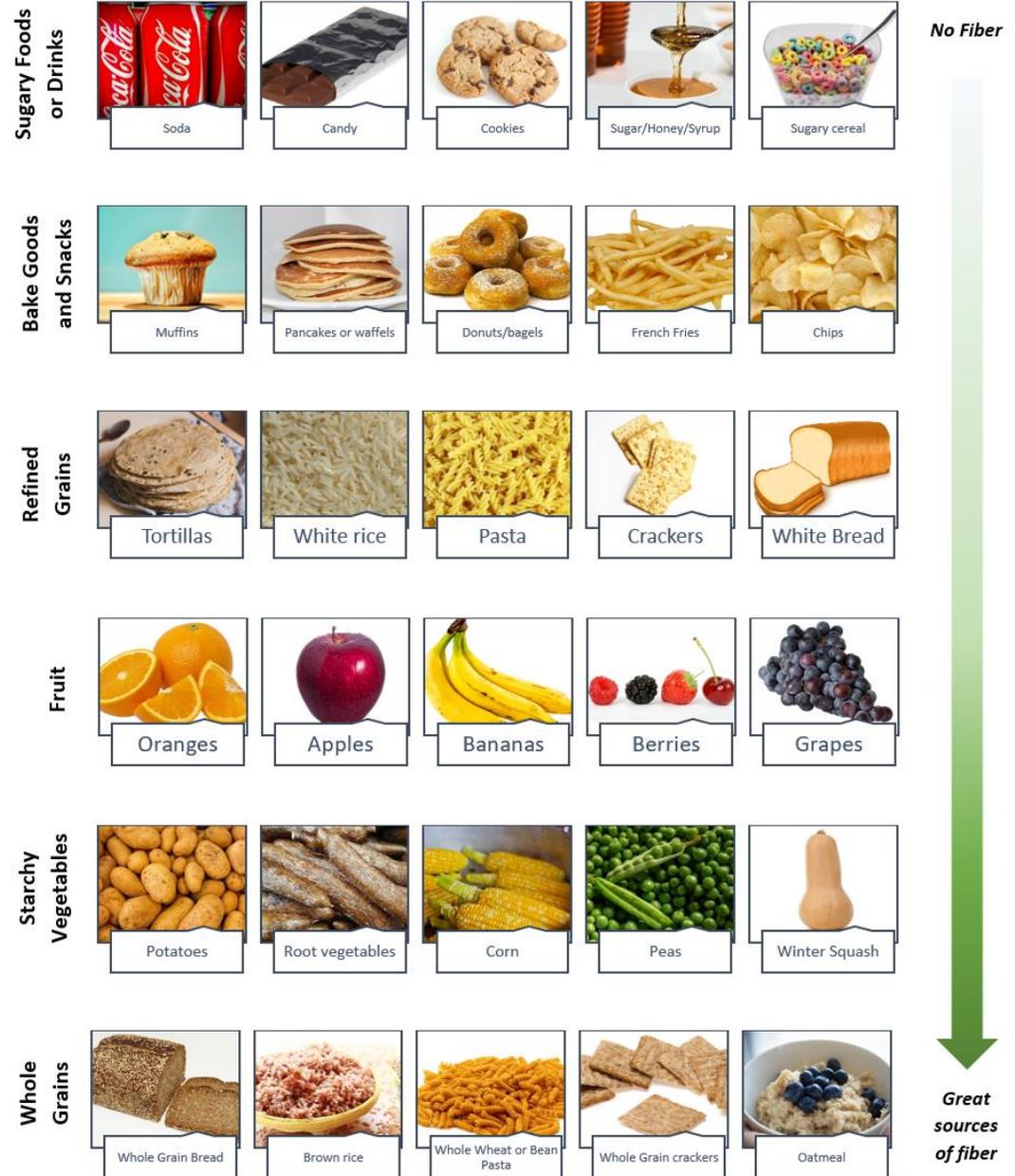
Community perspectives

- Interview with Martha Alpaugh, MS, RDN (dietitian at CHCB)
 - “people think black and white when it comes to foods, it is important not highlighting bad vs good foods but showing balance... balance helps people make small, sustainable changes”
 - Martha developed a handout on carbohydrate sources grouped by fiber content that she reviews with patients with prediabetes or type 2 diabetes. It contains pictures so that individuals of all abilities can follow it.
 - She emphasized the need for Nepalese specific food recommendations
 - Her Americanized template of carbohydrate sources was the framework for my Nepalese-specific version

Martha's original Americanized version

Carbohydrate Sources

These foods contain higher amounts of carbohydrates and can raise your blood sugar.
The foods at the top will raise blood sugar more than the foods at the bottom.



Community perspectives

- Interview with Namgay Sherpa, Nepalese Case Manager at the Association of African's Living in Vermont (AALV)- an organization helping New Americans settle into new communities in Vermont including Bhutanese, Burmese, Nepalese, Iraqis, and others
 - We discussed some misconceptions that patients with diabetes have regarding nutrition, such as the concept of “good vs bad foods” and that “all carbohydrates are bad”
 - Additionally, we discussed the importance of understanding where many New Americans grocery shop
 - Lastly, Namgay reviewed a draft of the newly created Nepalese carbohydrate sources and verified the accuracy of the labels & pictures
- Additional community members that contributed
 - Chandra Chamlagi, Physician Assistant- familiar with Nepalese cuisine & made recommendations of local Asian markets that I should visit
 - Lakpa Tamang- manager/owner of Asian Market on 1 Intervale Ave, Burlington, VT who showed me around the store & helped me identify commonly purchased foods by Nepalese customers

Intervention & Methodology

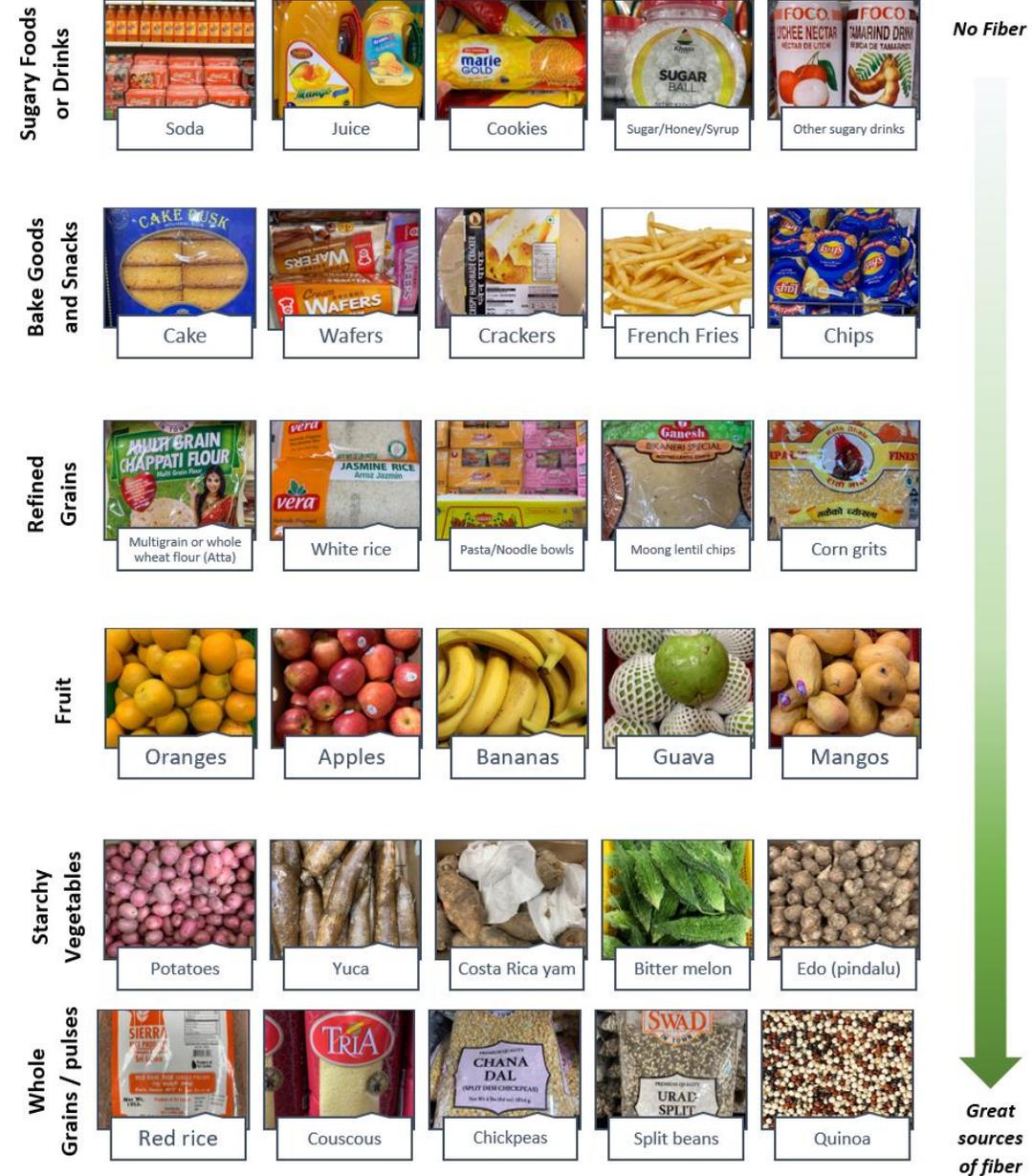
- Learned about common Nepalese carbohydrate sources by visiting a local Asian market
- Took pictures of actual foods at the market for an image-focused, one-page handout to minimize language barriers
 - Designed to give patients brief, easy to follow, overview about carbohydrate sources with varying fiber content
 - Provides substitutions they can make in their diet that is available at the grocery stores they frequent
 - The handout is now more relevant to the Nepalese population

Updated Nepalese handout

Carbohydrate Sources

These foods contain higher amounts of carbohydrates and can raise your blood sugar.

The foods at the top will raise blood sugar more than the foods at the bottom.



Results

- The handout is available for printing & distribution to patients at CHCB
 - When Nepalese patients with prediabetes & type 2 diabetes meet with the dieticians at CHCB, they utilize the new handout & give them a copy
- Namgay at AALV also requested copies of the handout for distribution to interested New Americans that she works with

Evaluation of effectiveness

- Formal evaluation of effectiveness has not yet been performed
- Methodology for evaluating effectiveness of information could include follow-up survey asking Nepalese patients' opinions on the effectiveness of the handout & if they have made changes utilizing the handout
- Could also monitor diabetes-related health data (hemoglobin A1c, fasting blood glucose, lipids) at follow-up visits & compare these to values prior to utilizing the handout

Limitations

- Time constraints did not enable us to gather patient perspectives on what they wanted in the handout or their perceived usefulness of it
- Image quality could be improved with a professional camera & different software for generating the handout
- At this time, CHCB has limited access to color printing, which may negatively impact the clarity of the images & create difficulty for some patients

Future directions

- Identifying additional barriers to lifestyle modifications, like eating healthier and activity level with those that have prediabetes and type 2 diabetes
- Creating additional handouts that are culturally sensitive to other New Americans communities
- If handouts include text, having multiple copies available in different languages
- Examine the efficacy of this intervention

References

1. US Committee for Refugees and Immigrants. (n.d.) Retrieved June 8, 2022, from <https://refugees.org/uscri-vermont/>.
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3. Centers for Disease Control and Prevention (n.d). Diabetes and Prediabetes. Retrieved June 8, 2022, from <https://www.cdc.gov/chronicdisease/resources/publications/factsheets/diabetes-prediabetes.htm>.
4. American Diabetes Association (2022). The Burden of Diabetes in Vermont. Retrieved June 8, 2022, from https://diabetes.org/sites/default/files/2022-04/ADV_2022_State_Fact_sheets_all_rev_VT-4-4-22.pdf.

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Yes / No

Name (printed): Marth Alpaugh

Signature: *Marth Alpaugh*

Yes / No

Name (printed): Namgay Sherpa

Signature: *Namgay Sherpa*

Name (printed): Chandra Chamlagi

Signature: *Chandra Chamlagi*

Name (printed): Lakpa Tamang

Signature: *Lakpa Tamang*