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Addressing the Dietary Needs of the Food Insecure

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Capstone project for the Bachelor of Arts in Human Development and Family Studies

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Addressing the Dietary Needs of the Food Insecure

Many of the people receiving food assistance through food pantries may have dietary restrictions that are in conflict with the packaged food provided by the pantries. In order for the staff and volunteers to be able to adjust to the needs of their clients, they must be knowledgeable about how the content of the food impacts those recipients who are on specialized diets and be able to provide appropriate foods for them. Therefore, I will be conducting a one hour workshop to the staff and volunteers at Saint Joseph's food pantry in Gilroy, California.

Need Statement

Food insecurity is when someone does not have enough access to food for themselves or their family members. Food banks and food pantries are places where food is collected, stored, and distributed through a non-profit agency and where daily meals are prepared and distributed free of charge to those who are needy. More than 11% of American families are food insecure and utilize food banks for all or part of their food needs (Coleman-Jensen, Rabbitt, Gregory, & Singh, 2018). Furthermore, many of the clients served by the food banks and pantries may have health problems that require dietary compliance. A report by United Health Foundation indicates that the percent of American adults diagnosed with diabetes is 10.9%. However, when grouped by income levels, the percentage of diagnosed adults with an income less than \$25,000 is 19.4%, significantly higher than the national average. Given that the clients who patronize food banks and pantries are low income, it is highly likely that they reflect the high rate of diabetes and other health issues requiring dietary compliance. The long-term reliance on food banks, the inadequate nutritional value of the food distributed, and the rise of special dietary requirements means new food-distribution programs must be developed to meet the needs of food bank clients.

The past decade has been a shift in the nature of food banks. Food banks were initially considered temporary emergency relief with the primary focus on meeting the immediate caloric requirements of a desperate population. Traditionally, the distribution process for food banks involved packing boxes or bags with shelf stable processed food with little regard for nutritional value. The individual dietary needs were ignored because it was assumed that this food was only an emergency stoppage for the food banks and not a chronic situation. However, in the last two decades, food pantries have seen their services being used for long-term relief. Remley, Kaiser, and Osso (2013) suggested that more than two-thirds of food bank clients use food banks as a long-term supplement to avoid extreme hunger. Food banks are adjusting their practices to meet the changing needs of their clientele. One change is allowing food bank clients to have input into the types of foods they are receiving. In Butler County Ohio, they instituted a new choice where clients can make their healthy food choices on their own based on the choices available at the food bank (Remley et al., 2013). The changing nature of food banks means that banks, pantries, workers, and volunteers must rethink how the food offered satisfies the long-term nutritional needs of their clients.

Basic understanding of food nutrition along with improvements in food quality are needed to meet the needs of food insecure. According to Ross, Campbell, and Webb (2013), there is only limited documentation and categorization of the nutritional value of the food available in food banks. Without such categorization, workers and volunteers must rely on their own knowledge to assist food bank clients who have dietary restrictions. As food banks shift the focus from emergency intervention to long-term support, they have begun to find sources of fresh foods rather than relying on processed donations (Bacon & Baker, 2017). However, Ross et al. (2013) found that even when fresh fruits and vegetables are donated, they are often of a

higher calorie, less nutritional value variety, such as potatoes, onions, and melons. Even more concerning, food banks often receive large donations of snack foods and desserts that are high in sugar, salt and fat (Ross et al., 2013). Because there is little documentation of the food before it is distributed, the total nutritional value of the food being received by the clients is often overlooked.

Studies show that intervention programs through food pantries can result in positive health outcomes for vulnerable populations in communities. A rise in chronic illnesses related to diet and health behaviors seen in the general population are reflected in the food insecure. Ippolito et al. (2016) found that the management of diabetic levels becomes more difficult as food insecurity increases. Many food bank clients receiving food of low nutritional value need to make the choice between eating something with limited nutritional value and making positive health choices to meet their own dietary requirements (Seligman et al., 2015). Food banks that have piloted diabetes-appropriate food programs combined with other health support interventions have seen improvements in the health of their vulnerable population (Remley et al., 2013). Such programs indicate that food pantries that are able to identify healthy food options can help the food insecure better manage their chronic diseases.

Given that long-term food insecurity, poor nutritional understanding, and the rise of chronic health conditions have left a vulnerable population at risk, the project proposes a one-day interactive lesson on reading food labels for the workers and volunteers at St. Joseph's Food Bank. With this new knowledge, the workers and volunteers will have a better ability to make food substitutions that fit the needs of their vulnerable clients.

Theory

Bandura, in his social learning theory, stated that people learn through observation, also known as modeling. As people watch others, they can learn new behaviors through imitation. Bandura's theory divides observational learning into four processes: attentional, retention, production, and motivational (Miller, 2002). To address the attentional process, I intend to focus the participants' attention by presenting a functional value to the presentation. The entire presentation will be linked to improving outcomes in the job that the workers and volunteers do at the food bank. I will capitalize on the retention process by having participants complete an activity involving reading a food label. Third, participants will use production processes to describe a food substitution for a client. Finally, I intend to address the motivational processes by using the knowledge that the workers and volunteers are in their positions to help others and will therefore want to invest in learning this new information to meet the needs of their clients.

One of the issues to be considered at Saint Joseph's food pantry is the diversity of the workers and volunteers as well as the clients. From my observation in the food distribution center, there are more men working and volunteering than women. This disparity may have something to do with the heavy lifting involved that requires a great deal of manual labor. Therefore, the participants in the project will be predominantly male. From my observation, the ethnic diversity of workers and volunteers appears to be split evenly between Hispanic and Caucasian workers and volunteers. Through my observation at the food pantry, about 80% of the volunteers have English as their first language and many also speak Spanish. This language variation can be an issue because the food labels are in English and may be difficult to translate into Spanish easily.

A second issue at Saint Joseph's food pantry is the lack of diversity in the food available. Many of the clients have dietary requirements that are not met by the options available. This

includes requirements for a diabetic diet, a low sodium diet, a vegetarian diet, or an allergen-free diet. A further problem is, the lack of ethnicity food diversity offered at Saint Joseph's food pantry. The clientele at the food pantry is predominantly of Mexican origin, but the pantry does not regularly offer traditional Mexican foods. This is unfortunate because a client may be supplementing the food given with, for instance, high carbohydrate tortillas, changing the overall nutritional balance of the food and impacting the dietary outcome of the client. This project will focus on the requirements of a diabetic diet and how it can be better accommodated by reading labels and identifying the amounts of carbohydrates, protein, and fat within canned and processed foods.

Learning Outcomes

I intend to conduct an hour-long session that will be conducted in three segments.

At the conclusion of my project, participants will be able to:

1. Identify amounts of carbohydrates, fats, and sodium in food labels.
2. Identify three healthy food options for diabetics.
3. Indicate one food substitution that can be made for someone with dietary restrictions.

Method

First Segment

I will be there 15 minutes early to set up the video and organize materials. I will introduce myself and explain to the workers/volunteers the reason why I am there. I will ask the group to brainstorm how to determine if a food is “healthy.” After five minutes, I will introduce the importance of how to read a food label to identify the nutritional content of packaged foods. I will show a video about how to read food labels <https://youtu.be/AHbQ5ts8UcU>. This video is just under four minutes. I will then pass out to groups/individuals sample items so they can

identify the serving size and amount of calories, carbohydrates, fats, and sodium. After five minutes, each group/individual will share with the entire group their findings. I will then pass out a worksheet regarding food labels. See Appendix A. I will collect that worksheet after everyone is completed.

Second Segment

I will ask the workers/volunteers what they know about diabetes. After three to four minutes to define what the disease of diabetes is, I will give the participants a True/False pre-test on diabetes and diet. See Appendix B. I will then give a presentation on the dietary needs of diabetics. See Appendix C. The slides will introduce the definition of diabetes and the need for a controlled diet. After the presentation, I will lead a discussion on the information and address any questions or comments. I will ask them to review the answers from the pre-test and resolve any issues they have regarding the correct answers.

Third Segment

As I start to wrap things up, I will end my segment with a five minute applied knowledge game. Participants will be divided into two groups and given pairs of canned foods. I will ask the workers/volunteers to make the better choice to give to the clients with a dietary restriction due to diabetes. The team with the most right choices will be the winner. I will wrap up the segment by reviewing the choices and discussing any questions that arose. Then, I will conclude my segment by thanking them for their time.

Results

Not able to complete due to COVID 19

Discussion

Not able to complete due to COVID 19

References

- Bacon, C.M., & Barker, G.,A. (2017). The rise of food banks and the challenge of matching food assistance with potential need: Towards a spatially specific, rapid assessment approach: *Agriculture and Human Values*, 43, 899-919. doi:10.1007/s10460-017-9783-y
- Coleman-Jensen, A., Rabbitt, M.P., Gregory, C. & Singh, A. (2019). *Household Food Security in the United States in 2018, ERR-270*, U.S. Department of Agriculture, Economic Research Service.
- Dave, J. M., McNeill, L. H., Svendsen-Sanchez, L., Thompson, D. I., & Jibaja-Weiss, M. (2017). Development of a nutrition education intervention for food bank clients: *Health Promotion Practice*, 18, 221-228. doi: 1177/1524839916681732
- Ippolito, M. M., Lyles, C. R., Marshall, M. B., Prendergast, K., Seligman, K., & Waxman, E. (2016). Food insecurity and diabetes self management among food pantry clients. *Public Health Nutrition* 20(1), 183-189. doi: 10.1017/S13689800116001786
- Miller, P.H. (2002). *Theories of Development Psychology*. New York: Worth Publishers.
- Remley, D. T., Kaiser, M., & Osso, T. (2013). A case study of promoting nutrition and long-Term Food security through choice pantry development: *Journal of Hunger & Environment*, 8,324-336. doi: 10.1080/1932248.2013.819475
- Ross, M., Campbell, E. C., & Webb, K.L. (2013). Recent trends in the nutritional quality of food banks' food and beverage inventory: Case studies of six California food banks. *Journal of Hunger & Environmental Nutrition* 8, 294-309. doi 10.1080/19320248.2013.816992

Seligman, H. K., Lyles, C., Marshall, M. B., Prendergast, K., Smith, M. C., Heading, A., Bradshaw, G., Rosenmoss, S., & Waxman, E. (2015). A pilot food bank intervention featuring diabetes-appropriate food improved glycemic control among clients in three states. *Health Affairs, 34*, 1956-1963. doi:10.1377/hlthaff.2015.0641

United Health Foundation. (2019). *American's Health Ranking Annual Report*.
Minnetonk, MN

Appendix A

Food Label Worksheet

Name: _____

Food Labels

Directions: Study the food label and answer the questions.

Nutrition Facts	
Serving Size 1 cup (236 mL)	
Amount Per Serving	
Calories 130	Calories from Fat 45
% Daily Values*	
Total Fat 5g	8%
Saturated Fat 3g	15%
Trans Fat 0g	
Cholesterol 20mg	7%
Sodium 125mg	5%
Total Carbohydrate 12g	4%
Dietary Fiber 0g	0%
Sugars 12g	
Protein 8g	
Vitamin A 10%	Vitamin C 4%
Calcium 30%	Iron 0%
Vitamin D 25%	
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
Calories: 2,000 2,500	
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g

FAT REDUCED 8g TO 5g AND CALORIES REDUCED 150 TO 130.
 INGREDIENTS: GRADE A PASTEURIZED REDUCED FAT MILK,
 VITAMIN A PALMITATE AND VITAMIN C3.

1. What is the serving size of this product?

2. How many calories per serving size are in this product?

3. What percent of daily value is the sodium?

4. In 2 servings, how much Vitamin A is there?

5. Based on this food label, would you consider this product to be healthy? Why or why not?

Look at 6 different products' food labels. Find three that are healthy and three that are less healthy. Record the products below and their sodium levels.

healthy

less healthy

Appendix B
True/False Questionnaire

True/False

1. 1 in 5 people have diabetes in the US. **True False**
2. People with diabetes can not eat sweets or sugar. **True False**
3. Diabetes can be controlled with a well balanced diet. **True False**
4. People with diabetes often have high blood pressure or other health problems. **True False**
5. All fruits are a healthy option for people with diabetes. **True False**
6. Choosing a balanced meal for diabetics is more important than how many calories it has.
True False
7. Type 2 Diabetes can not be prevented. **True False**
8. People most at risk for developing prediabetes or Type 2 diabetes are overweight, over 45 years, and have family history. **True False**
9. People with diabetes only have to pay attention to the sugar they eat. **True False**
10. Pasta noodles are not a good choice for diabetics when served alone. **True False**

Appendix C

Diabetes Presentation

Saint Joseph's Family Center

By Ana Chrisman

What is diabetes?

Is a disease in which the body's ability to produce or respond to the hormone insulin is impaired, resulting in abnormal metabolism of carbohydrates and elevated levels of glucose in the blood and urine (Webster dictionary).

Can diet help control diabetes?

The key is a well balanced meals!

Thank you!

Questions?



Presentation for Capstone Final Project

Food Insecurity Requires a New Approach to Nutrition

Ana Chrisman

The Need

- Food insecurity is when someone does not have enough access to food.
- 11% of American families are food insecure (Coleman-Jensen, Rabbitt, Gregory, & Singh, 2018).
- Clients served by the food banks/pantry may have underlying health conditions.



The Need

- Long-term reliance on food banks
- Inadequate nutritional value
- Rise of special dietary restrictions
- Programs need to developed



Theory & Development

- Albert Bandura Social Learning Theory
- Development: Learn through Modeling & Observation
 - Attention Processes
 - Retention Processes
 - Production Processes
 - Motivation Processes



Who / What / Where

- Saint Joseph's food pantry workers/volunteers
- Three Segments:
 - Watch a video & Read a food label
 - True/False questionnaire & review answers
 - Game with can foods
- Gilroy Ca



Method

First Segment:

- How to read a food label

Name: _____

Food Labels

Directions: Study the food label and answer the questions.

Nutrition Facts	
Serving Size 1 cup (236 mL)	
Amount Per Serving	
Calories 130 Calories from Fat 45	
% Daily Values*	
Total Fat 5g	8%
Saturated Fat 3g	15%
Trans Fat 0g	
Cholesterol 20mg	7%
Sodium 125mg	5%
Total Carbohydrate 12g	4%
Dietary Fiber 0g	0%
Sugars 12g	
Protein 8g	
Vitamin A 10%	• Vitamin C 4%
Calcium 30%	• Iron 0%
*Percent Daily Values are based on a diet of 2,000 calories.	
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	
Calories: 2,000 2,500	
Total Fat	Less than 5g 5g
Sat Fat	Less than 10g 10g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	250g 275g
Dietary Fiber	25g 30g

*Percent Daily Values are based on a diet of 2,000 calories. Your daily values may be higher or lower depending on your calorie needs.

Look at 6 different products' food labels. Find three that are healthy and three that are less healthy. Record the products below and their sodium levels.

healthy	less healthy
_____	_____
_____	_____
_____	_____

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Method

Second Segment:

- True/False Questionnaire

True/False

1. 1 in 5 people have diabetes in the US **True**
False
2. People with diabetes can not eat sweets or sugar. **True** **False**
3. Diabetes can be controlled with a well balanced diet. **True** **False**
4. People with diabetes often have high blood pressure or other health problems. **True** **False**
5. All fruits are a healthy option for people with diabetes. **True** **False**
6. Choosing a balanced meal for diabetics is more important than how many calories it has. **True**
False
7. Type 2 Diabetes can not be prevented. **True**
False

Learning Outcomes

At the conclusion of my project, my participants will be able to:

- Identify amounts of carbohydrates, fats, & sodium in food labels.
- Identify three healthy food options for diabetics.
- Indicate one food substitution that can be made for someone with dietary restrictions.



Results

Not able to complete due to COVID 19

Evidence

Not able to complete due to COVID 19

Discussion

Not able to complete due to COVID 19

**Thank you!
& Questions?**



