

Nutrition Guide for Low-income Women at Risk of Developing Symptoms of Anxiety and Depression

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Introduction

Anxiety and depression are prevalent conditions that have increased in recent years.¹⁰ Research has shown that low-income women are at greater risk of experiencing symptoms of these conditions.^{2,3} Low-income women have a lower intake of nutrient-rich foods, elevating their risk for chronic diseases.⁴ The inability to meet recommended nutrient needs increases the risk of developing chronic conditions.⁶ Key nutrients such as omega-3 fatty acids, folate, vitamin B12, vitamin D, and foods containing probiotics, prebiotics, and fiber, may play a role in reducing and preventing symptoms of anxiety and depression. 1,6,7,9 Prior evidence has shown improvements in mental health conditions through dietary interventions.^{5,8} A guidebook providing nutrition education and resources may aid in managing and preventing symptoms of anxiety and depression.

Purpose

To improve mental health outcomes by developing nutrition recommendations that promote higher intakes of nutrients associated with reduced symptoms of anxiety and depression. To increase accessibility to healthy foods by addressing barriers of cost, time, and motivation. To provide resources for programs that offer affordable and nutritious food.

Methods

- Conduct a literature review evaluating current evidence on nutrients and their effects on mental health of lowincome women.
- 2. Develop a nutrition guidebook with tools that promote increased intake of key nutrients beneficial to mental health.
- Provide recipes, meal plans, and food waste prevention tips to address barriers to nutritious food experienced by low-income women.
- 4. Provide information on mindfulness, physical activity, and therapy to help reduce stress and prevent symptoms of anxiety and depression.
- 5. Develop evidence-based action tools to promote lifelong health behavior changes.
- 6. Create and administer a formative evaluation assessment for an expert panel experienced with the target audience to review and provide feedback for the guidebook.

Results

The guidebook was developed using evidence-based nutrition information relevant to the target audience. The polytheoretical framework was used to address varying stages in mental health. The guidebook was reviewed by a panel of two registered dietitians and two social workers in the mental health field. Panels member's feedback to survey questions was synthesized to evaluate the guidebook components from the perspective of those working with the target population.

Question	Descriptive	
	$ar{x}$	SD
The principal message and purpose of the guidebook are clear.	5	0
The guidebook is an efficient tool to increase knowledge and intake of relevant nutrients among at-risk low-income women.	5	0
The content is appropriate and relevant to at-risk low-income women.	4.8	0.4
The guidebook includes practical, inclusive, and culturally appropriate content.	4.8	0.4
The content is structured, organized, and visually appealing.	5	0
The guidebook provides realistic food options, recipes, and meal planning ideas.	4.8	0.4
The guidebook promotes taking action and provides skills to increase intake of nutrients important to at-risk low-income women.	5	0
Overall, I was satisfied with the guidebook.	5	0
I am confident at-risk low-income women will understand and learn from the guidebook.	5	0
Would you recommend the use of this curriculum?	1	0

Table 1. Expert Panel Review Averages and Standard Deviations (n = 4)

Comments and Feedback		
Panelist A	Commented she liked the structure, organization and found it visually appealing.	
Panelist B	Was thankful for the opportunity to participate.	
Panelist C	Commented they'd like to share this guidebook with female clients. Noted reoccurring concerns of female clients include body dysmorphia and low self-esteem. Said guidebook is helpful for clients to know what is healthy to eat, how to make better choices, and what nutrients may affect mental health. Noticed ingredients were affordable and accessible, things kept in mind while reviewing the guidebook due to limited income of client population. Noted recipes fit needs of target population because they are easy to make in a home, motel, shelter, or other situations.	
Panelist D	Commented this guidebook opened their eyes to the importance of proper nutrition for at-risk women. They said the education in the guidebook was invaluable and found it to be an amazing read. This panelist stated the guidebook should be presented and given out to social service agencies in LA County and stated it is "an incredible guidebook."	

Table 2. Expert Panel Review Comments

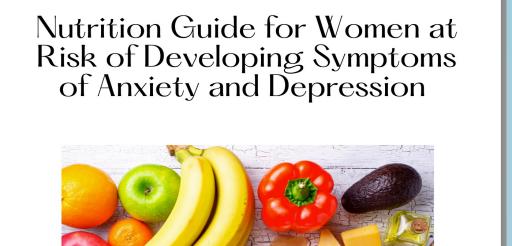




Figure 1. Guidebook cover page

2. The Healthy Plate

Protein: choose a variety of protein

chicken, pork, beef, as well as beans,

lactose-free options. Fortified milk

alternatives are also a healthy option when milk is not tolerated well. [36]

Learning objectives for this section: Gain confidence in making healthy food

choices using food portion basics and lists of daily food group targets.

protein choice 2-3 a week. [36] Dairy: choose low-fat or fat-free dairy such as milk, cheese, yogurt as well as



Figure 2. Introduction to Section 1



healthy on a budget by learning food prevention skills, as well as helpful food safety

Figure 6. Introduction to Section 5

Figure 3. Introduction to Section 2 Figure 4. Introduction to Section 3

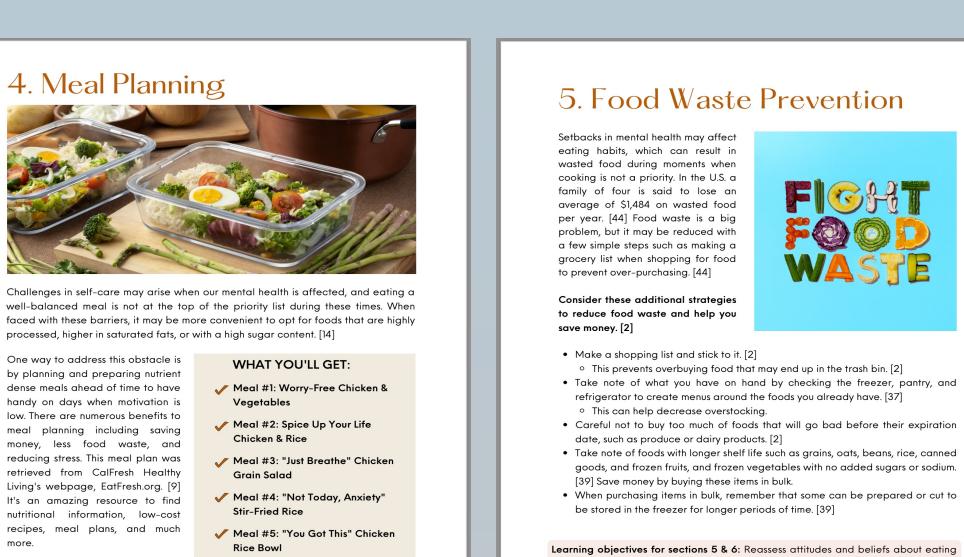


Figure 5. Introduction to Section 4

Learning objectives for this section: Build motivation to plan weekly nutritious meals

that help save time and reduce stress.

Figure 7. Introduction to Section 7

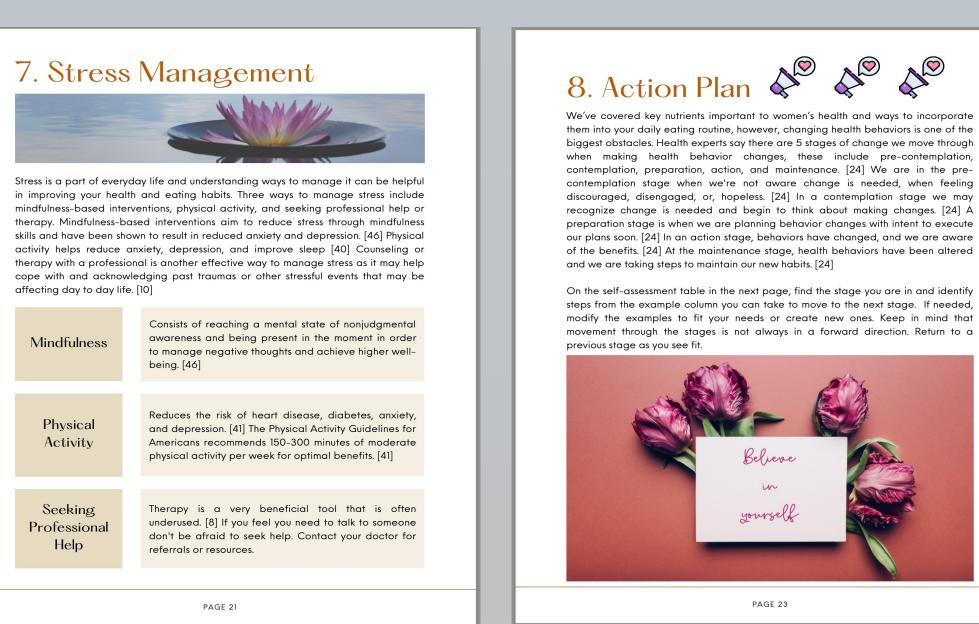


Figure 8. Introduction to Section 8

Conclusion

Low-income women have higher levels of stress, higher prevalence of chronic disease, and lower quality diet.² A nutrition guidebook may help address the gaps in preventative care for this at-risk of population. This guidebook was designed to help prevent and treat symptoms of anxiety and depression in low-income women with evidence-based tools and resources. It aims to provide nutrition education, promote self-efficacy, selfconfidence, and tools to promote life-long behavior changes.

A limitation to this project was the small sample size (n = 1) 4) of the expert panel. Expanding the sample size may provide additional feedback to make improvements to the guidebook. No changes were made to the guidebook at this time. This project was also limited in addressing anxiety and depression, excluding other mental health conditions.

This guidebook may be helpful in addressing the needs of at-risk low-income women to professionals in the field of mental health and nutrition.

Future work could include distributing the guidebook to professionals for trial studies as well as to involve the target audience in the evaluation process.

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For more information

Please contact marisela.maldonado@student.csulb.edu for more information on this directed project.