

Delivery of Medical and Nutritional Data Patient Activated Learning System (PALS)



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Research Background

- Socially disadvantaged populations are disproportionately affected by nutrition-related chronic diseases
- There is a need to provide easily accessible, translated, trustworthy, relevant health and nutrition data to socioeconomically disadvantaged communities

Objectives

- The Patient Activated Learning System (PALS) is a web-based resource that provides engaging, easily understood, and well-researched medical and nutrition information to the public
- Evidence-based data is presented through the creation of reusable knowledge objects (RKOS) that are displayed on a single-objective webpage

Methods

- Multidisciplinary Partnership: Cornell University Division of Nutritional Science, Cornell Cooperative Extension and New York State EFNEP, Weill Cornell General Internal Medicine, PALS
- Conducted research protocols using PALS manual
- Researched PubMed, non-PubMed and primary literature reviews using PALS replicable research manual

Process and Results

Rapid systematic review of nutrition scientific evidence & practice guidelines

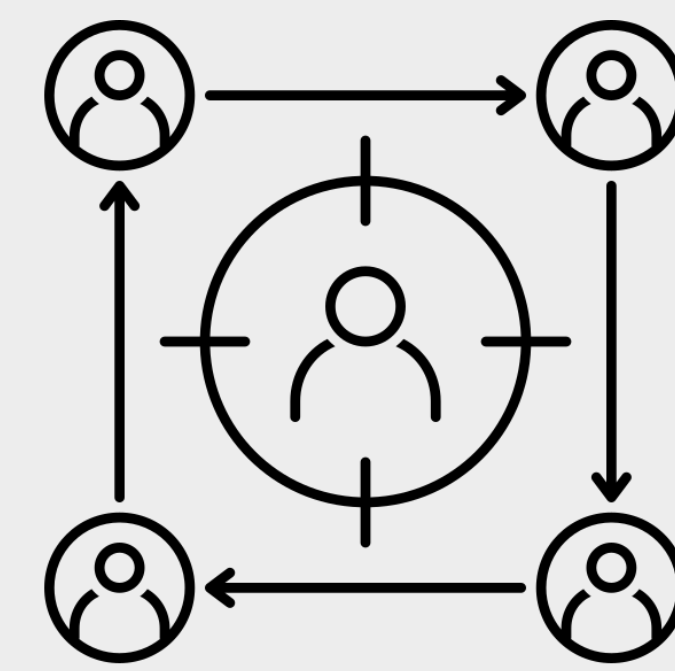


- Content of the page informed by a rapid systematic review process that incorporated evidence from nutrition research and practice guideline

This influences PALS webpage contents:

- **Evidence Review Summary** for professionals
- **Public-facing content** at the 6-8 grade reading level
- **Manualized** the evidence review process

Assessed webpage acceptability with EFNEP educators



- Conducted 2 cognitive interviews via Zoom with 8 EFNEP nutrition educators

- Qualitative coding and analysis of focus group and interview transcripts (through CISER research platform)
- Revise RKO based on focus group interviews and team edits

EFNEP participant feedback and results

- Solicited feedback about page content clarity, appeal, helpfulness
- 2 researchers iteratively coded interview transcripts, independently summarized feedback, and discussed findings

- Pages offer relevant, easily digestible content
- Demonstrated understanding of content
- Most found content helpful and would return to PALS, citing clarity of information and perceived trustworthiness of source

Merging RKO webpage topics

- RKO based on the vegan diet including Triglycerides, LDL and HDL levels
- **Concluded:** insufficient data to draw upon conclusions

- Redefined Vegan diet RKO and determined a more applicable question to define the Vegan diet
- Used the PALS protocol to redefine the vegan diet
- "Is the Vegan diet heart health?"
- Included HDL, LDL, blood pressure, C-RP, triglycerides

Webpage Interface

The screenshot shows a webpage interface for the question "Is eating fiber-rich foods heart healthy?". It includes an answer section with text about fiber, a "Dietary Fiber Examples" table, and an "Assessment question and answers" section with radio buttons for "No", "The risks of eating fiber-rich foods outweigh the benefits", and "Yes".

Foods Higher in Fiber	Legumes including:	Figure/ Table
Vegetables	Beans	
Fruits	Lentils	
Nuts	Peas	
Seeds	Chickpeas	
Whole grains including:	Black-eyed peas	
Whole wheat	Edamame	
Oats		
Buckwheat		
Rye		
Whole grain rice		
Oatmeal		

Conclusions

Create a strong pipeline to produce nutrition-related PALS content, including development of a course to teach the replicable process for evidence review and knowledge translation.



PALS Course 2020