

Exploring Nutrition Literacy and Knowledge Among School Nutrition Managers



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OBJECTIVES

The objectives of this study were to describe nutrition literacy/awareness levels and nutrition knowledge among school nutrition (SN) managers, and explore barriers to seeking SN information.

METHOD

- An expert panel of seven SN professionals assisted in defining Nutrition Literacy in the context of the school environment and contributed to the development of the survey.
- A random sample totaling 700 SN directors, stratified by the seven USDA regions, was selected as the primary contacts for distributing the survey among SN managers in their school district.
- A total of 199 SN directors responded to the request for participation.
- A total of 1,665 SN manager surveys were requested and mailed to the SN directors.
- A total of 763 surveys were returned by the SN managers for a response rate of 45.8%. Surveys having greater than 30% missing data were deleted from the analysis, ending with a total of 728 SN manager surveys for analysis.
- Survey content covered seven general topic areas:
 - Knowledge of the USDA meal requirements for SN programs and the 2005 Dietary Guidelines for Americans,
 - How much attention is given to different sources of child nutrition information,
 - Barrier and confidence-related questions pertaining to searching for nutrition information regarding child nutrition issues,
 - Knowledge questions pertaining to child nutrition issues,
 - Nutrition label reading questions, as adapted from the Newest Vital Sign (Weiss et al., 2005),
 - Perceived role in school wellness and perceived confidence in SN decision making/scenarios, and
 - Demographic questions.
- Survey was pilot tested by nine SN directors, including five who participated in the expert panel.

RESULTS

- Majority of SN managers (72.2%) had adequate nutrition literacy skills as measured by an adapted version of a previously validated instrument based on interpreting a food label.
- Findings on the 10 nutrition knowledge statements indicate that knowledge was more compromised including:
 - 22.7% with low nutrition knowledge
 - 45.0% with limited nutrition knowledge, and
 - 32.3% with adequate nutrition knowledge.
- Nutrition literacy/knowledge scores varied by the type school and years worked in current position.
 - SN managers working in elementary schools and in current position for greater than 20 years reported lower nutrition literacy/knowledge scores.
- Barriers identified to gaining nutrition information had an average mean of 3.33 based on rating scale ranging from 5=strongly agree to 1=strongly disagree.
 - It took a lot of effort to get the information you needed (3.53 ± 1.31)
 - You were concerned about the quality of the information (3.35 ± 1.40)
 - You felt frustrated during your search for the information (3.28 ± 1.40)
 - The information you found was too hard to understand (3.11 ± 1.24)

APPLICATION

This study provides a foundation to explore the causes and consequences associated with nutrition literacy/awareness within the context of school nutrition programs. Since SN managers make daily decisions regarding the provision of food to students, it is critical to assure training opportunities are provided for these managers to develop the knowledge and skills necessary to locate, comprehend, and apply complex nutrition information for the students they serve.

NUTRITION LITERACY DEFINED IN THE CONTEXT OF THE SCHOOL ENVIRONMENT

Nutrition Literacy Construct	Interpretation Within the Context of the School Environment
Capacity to obtain basic nutrition information	<ul style="list-style-type: none"> • Self-confidence of staff to obtain information • Where they would go for information, including internet sources • Knowing correct and incorrect direction to take to get information • Communication within the department • State and national associations • Barriers to obtaining information including time and apathy • Know where to go for food allergy information • Know when and where to seek information • Focus on information • Dietary allowances
Capacity to comprehend and apply basic nutrition information	<ul style="list-style-type: none"> • Understand offer vs. serve • Basic understanding of dietary guidelines • What constitutes a "food group" within the context of school lunch • Understand components of "traditional" school lunch • Production techniques that enhance/destroy nutritional quality • Food sources of macro vs. micro nutrient • Know the required meal patterns • Appropriate substitutions • Reading food labels including ingredient lists & serving size • Understanding food allergies and dangers in making false claims and not reading • Used correct portioning tools when measuring ingredients • Understands how many items equal a serving
Additional information	<ul style="list-style-type: none"> • Understanding that nutrition info is constantly updated • Link between what's selected and what children eat • Knowing when to refer to someone else • Feedback from service of meals