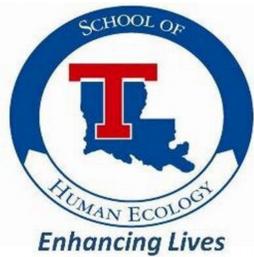




A Multi-State Evaluation of the Knowledge of the Background and Dangers of Popular Fad Diets Among Cooperative Extension Agents in Family and Consumer Sciences

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Introduction

Cooperative Extension Services (CES) provides communities with research-based information (Franz & Townson, 2008). Extension agents listen to the concerns of their community and educate others in an effective manner (Zacharakis, 2008). Rapidly changing trends leave communities seeking reliable information. There was a need to assess CES agents' knowledge about fad diets to develop effective professional trainings (Carbone & Zoellner, 2012). Extension agents scored higher for general fad diet knowledge than adverse effects knowledge. Webinars were identified as the preferred delivery method of professional education. SNEB and the Academy of Nutrition and Dietetics (AND) members scored highest for total knowledge scores.

Objectives

The purpose of the study was to assess the general knowledge of popular fad diets (low carbohydrate, intermittent fasting, and detoxes and cleanses) and their potential harmful effects among FCS cooperative extension agents, and its relationship among the variables of location, professional certifications held, years of extension work experience, membership in professional associations, and education level. The study surveyed FCS agents in Louisiana, Texas, Arkansas, and Mississippi.

Methods

All FCS agents in participating states met eligibility criteria. Participating state offices sent agents a link to an online survey. The survey was designed by the researcher and administered through Survey Monkey™. State office designates distributed the survey link to eligible agents. Data collection lasted four weeks. The survey collected demographic information, assessed agents' knowledge of the premises and potential adverse effects of low-carbohydrate diets, intermittent fasting, detoxes, and cleanses. Scores were calculated for six categories:

- Knowledge of low-carbohydrate diets
- Knowledge of intermittent fasting
- Knowledge of detoxes/cleanses
- Knowledge of adverse effects of low-carbohydrate diets
- Knowledge of adverse effects of intermittent fasting
- Knowledge of adverse effects of detoxes/cleanses

Results

Table 1.

Characteristics of Respondents (N = 138)

Area of practice	Respondents n (%)
General Nutrition	128 (93%)
Food Safety	86 (62%)
Weight Control	54 (39%)
Diabetes Management	60 (44%)
EFNEP	20 (15%)
Years of experience	
0-1 year	27 (20%)
>1 year - ≤ 10 years	58 (42%)
> 10 years - ≤ 20 years	31 (22%)
> 20 years	22 (16%)
Membership in professional organizations	
NEAFCS	111 (80%)
SNEB	2 (2%)
AND	17 (12%)
Other	26 (19%)
Education level	
Bachelor's	26 (19%)
Some graduate studies	15 (11%)
Master's	87 (63%)
Doctorate	10 (7%)
Certifications Held	
Extension Specialist	20 (15%)
RDN and/or DTR	13 (9%)
CHES	3 (2%)
CHC	4 (3%)
CFCS	14 (10%)
Other	42 (30%)
State of employment	
Louisiana	15 (11%)
Texas	70 (51%)
Arkansas	36 (26%)
Mississippi	17 (12%)
Gender	
Male	4 (3%)
Female	133 (96.7%)
Other/I prefer not to disclose	1 (1%)

* AND: Academy of Nutrition and Dietetics

- 138 agents from participating states were included in statistical analysis.
- The average total score for knowledge of fad diets and their adverse effects among all respondents was 70%.
- ANOVA testing was used to determine significance between demographic information and knowledge scores for the premises and adverse effects of the fad diets in the survey. *P*-values determined significance, with a significance value set at ≤ 0.05.

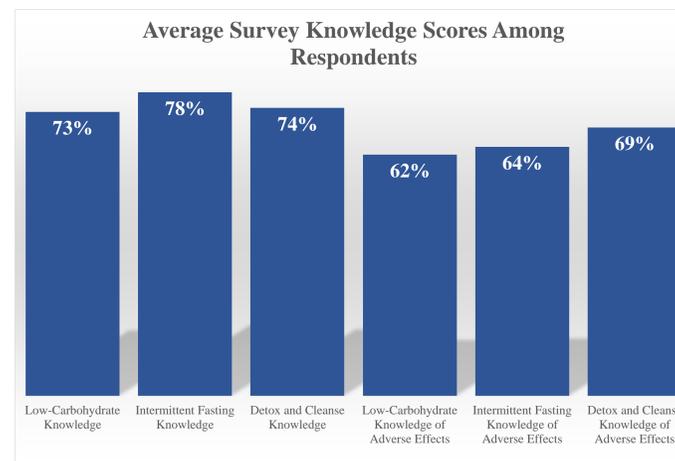


Table 2.

ANOVA Results for Adverse Effects Knowledge Scores by Certifications Held

Variable	F value	p-value
Certifications Held		
Extension Specialist	0.09	0.77
RDN	4.83	0.03
DTR	3.9	0.06
CHES	5.16	0.03
CHC	0.05	0.82
CFCS	0.31	0.58

* *p* ≤ 0.05

Discussion

The quality of programming and educational opportunities available through extension is heavily dependent on the knowledge and skills of the professionals delivering them (Cummings, Andrews, Weber, & Postert, 2015). Consistent professional development and the mindset of a lifelong learner are critical components of successful cooperative extension agents.

Over the last decade, there has been a rise in demand for nutrition and health-related programs due to an increased need for improved population health among communities across the nation (Kaufman et al., 2017). CES has evolved to meet the needs of communities by placing a greater focus on nutrition and health programming within family and consumer sciences (Kaufman et al., 2017). As the progression from home economics to nutrition and health in CES continues to grow and develop, there will be a greater demand for nutrition and dietetics professionals, such as RDNs and DTRs.

Respondents had a variety of education levels, certifications, years of experience in CES, areas of practice and professional memberships. A limitation of the study was the inability to determine response rates from each state.

Conclusions

Having CHES, RDN and/or DTR certifications was shown to positively influence knowledge regarding adverse effects of fad diets. General knowledge of fad diets was found to be similar among certification. However, general knowledge alone may not suffice for community education.

Results of the knowledge scores identified the areas of adverse effects of fad diets and the relative effectiveness of the various diets as CES agents weakest knowledge scores. These areas should be targeted for future trainings.

Future research should examine agents' knowledge of other trending nutrition topics, needs for professional development, and sources of development opportunities.

Selected References

- Carbone, E. T. & Zoellner, J. M. (2012). Nutrition and health literacy: A systematic review to inform nutrition research and practice. *Journal of the Academy of Nutrition and Dietetics*, 112(2), 265-265.
- Cummings, S. R., Andrews, K. B., Weber, K. M., & Postert, B. (2015). Developing extension professionals to develop extension programs: A case study for the changing face of extension. *Journal of Human Sciences and Extension*, 3(2), 132-155.
- Kaufman, A., Boren, J., Koukel, S., Ronquillo, F., Davies, C., Nkouaga, C. (2017). Agriculture and health sectors collaborate in addressing population health. *Annals of Family Medicine*, 15(5), 475-480.
- Zacharakis, J. (2008). Extension and community: The practice of popular and progressive education. *New Directions for Adult and Continuing Education*, 117, 13-23.