

Investigation of knowledge, attitudes, and self-efficacy of culinary skills as they relate to chronic disease prevention in future health practitioners: iCHOP Pilot Study

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ABSTRACT

Objective: Nutrition is a key component of disease prevention and treatment. However, nutrition education for health professional students is often lacking. This research describes the initial investigation of culinary skills and nutrition in medical students at West Virginia University.

Study Design: WVU medical students were surveyed on disease state of interest. Student responses (N=56) showed interest in diabetes, cardiovascular disease and pregnancy. To evaluate the need for programming on these conditions, a survey was developed to assess medical students' nutrition knowledge, attitudes, and self-efficacy.

Results: The 45-item survey was taken by students (N=58) in January 2017. Results showed positive attitudes towards nutrition in medicine with 87.5% of respondents stating the importance of addressing the role of diet with a patient. Further, 89.6% agreed or strongly agreed that physicians should counsel high-risk patients. For nutritional knowledge, students showed an overall low level of knowledge with an average correct response rate of 62.5%. Among the individual topics pregnancy had the lowest correct responses (56.4%), followed by diabetes (58.1%) and cardiovascular disease (73.1%). Similarly, self-efficacy was lowest as 67.2% of students stated not feeling proficient to advise a patient on breast milk vs soy formula. 46.6% stated they are not proficient in nutrition education for cardiovascular disease and 48.3% stated they feel somewhat proficient in the significance of weight loss in a diabetic patient. Medical students reported the highest self-efficacy on benefits of exercise on health (62.1% totally proficient).

Conclusion: These results demonstrated a need for increased nutrition related programs for medical students.

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INTRODUCTION

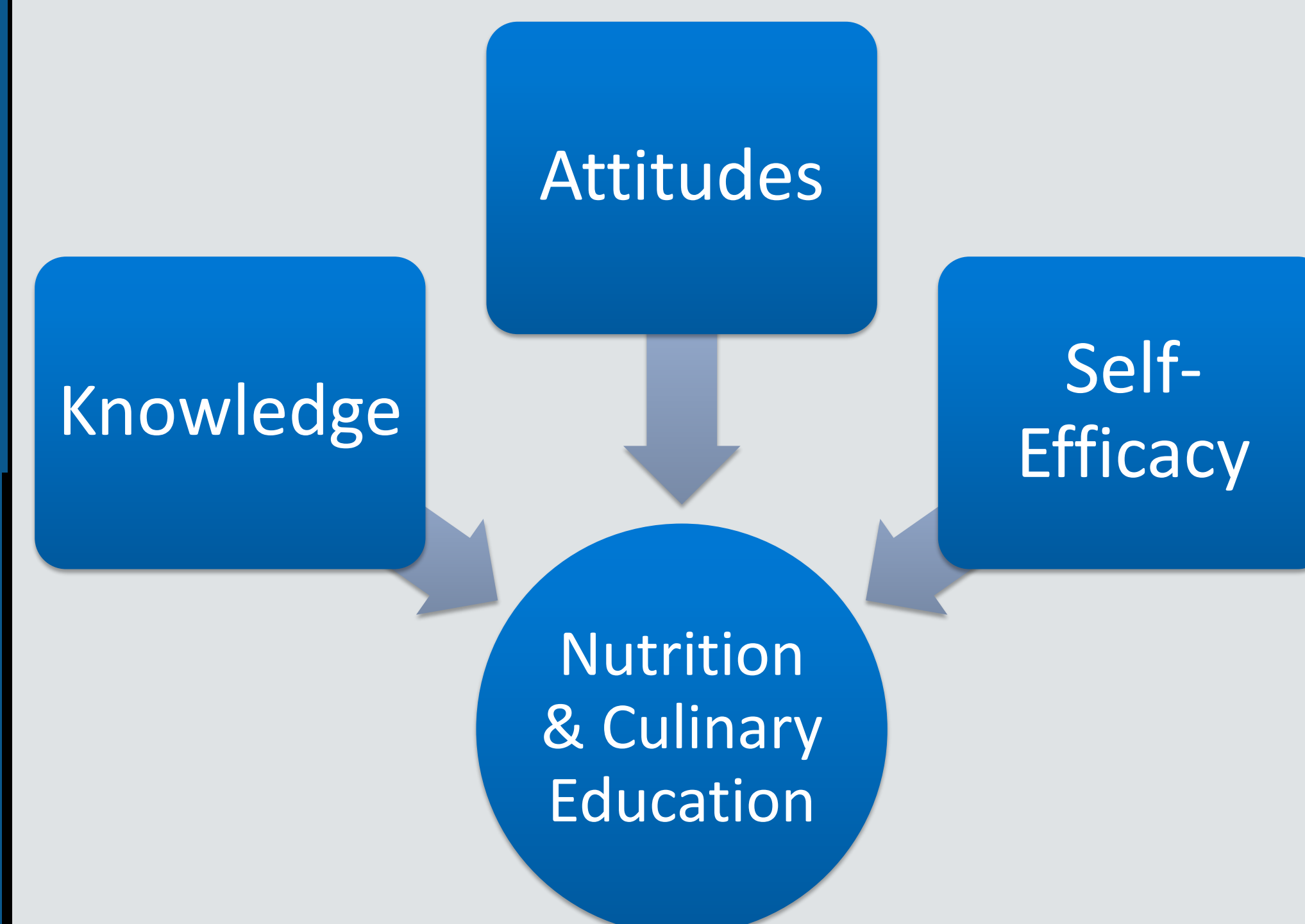
- Nutrition plays a key role in disease prevention and treatment
- Health professionals are perceived by the public to be vital resources for information about wellbeing
- Nutrition and culinary education in health professional training remains inadequate (Recommended 25 hours)

	2000	2004	2008	2012
Median hours of nutrition education	18	20	16	17
Schools with required nutrition course	39/112 (35%)	32/106 (30%)	26/105 (25%)	22/121 (18%)

- Few residents, fellows, and other clinicians are comfortable with managing nutrition problems in their patients

OBJECTIVE

- This research describes the initial investigation of culinary skills and nutrition in medical students at West Virginia University



METHODS AND MATERIALS

- Survey Development**
 - Attitudes: 41 item Likert scale - Nutrition in Patient care Survey (NIPS)
 - Self-Efficacy: 28 item self-reported nutrition proficiency survey (totally, somewhat or not proficient)
 - Knowledge: 24 item pulled from literature on diabetes, cardiovascular disease, and pregnancy
- Recruitment**
 - All medical students (MS1-MS4) emailed through listerv beginning Jan 2017

RESULTS

- Active WVU medical students (n=47) responded
- Majority of respondents were white (70%), not first generation (77%), and currently ranked as MS1 (45%) or MS2 (30%)
- Seventy percent of medical students had no prior nutrition education

Characteristic	N (47)	%
Year		
MS1	21	45
MS2	14	30
MS3	7	15
MS4	5	11
Race		
White	33	70
African American	0	0
Asian/Pacific Islander	5	11
Hispanic	3	6
Native American	0	0
Multiracial	2	4
Prefer not to respond	4	8
Appalachian		
Yes	27	59
No	18	39
Unsure	2	2
First Generation		
Yes	11	23
No	36	77
Nutrition Education		
Yes	14	30
No	32	70

RESULTS

Attitudes

- 87.5% state the importance of addressing the role of diet with a patient
- 89.6% express that physicians should counsel high-risk patients on diet
- 95.8% recommend dietary changes before drug therapy when possible
- 97.9% endorse referral to a registered dietitian
- 66.6% maintain that physicians are not adequately trained in nutrition

Positive

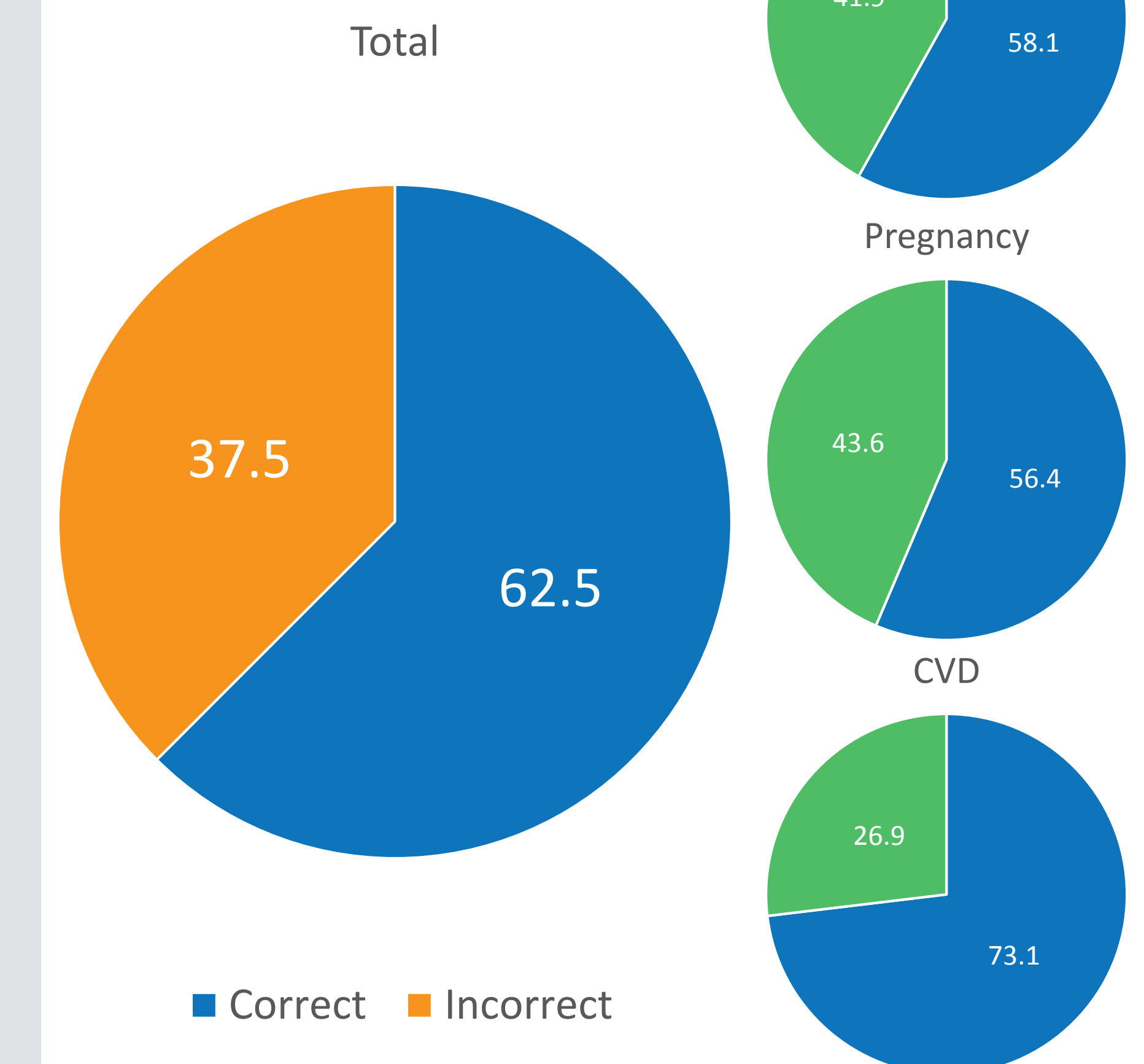
Self-Efficacy

- Cardiovascular Disease**
 - 46.6% not proficient in nutrition education for CVD
 - 31.0% not proficient on ω-3 and ω-6 in heart health
- Diabetes**
 - 48.3% somewhat proficient in weight loss in a diabetic patient
 - 31.0% not proficient on dietary patterns for Type 2 diabetes
- Pregnancy**
 - 67.2% not proficient on breast milk vs soy formula
 - 41.4% not proficient on benefits and challenges with breastfeeding

Negative

RESULTS

Knowledge



CONCLUSIONS

- Future health practitioners from WVU show positive attitudes towards nutrition in medicine but display low levels of self-efficacy and knowledge relating to disease state and nutrition
- With poor health on the rise, better training and educational opportunities for health practitioners are needed
- Nutrition training of medical students will better create a multidisciplinary prevention team for chronic disease prevention and treatment long term
- This research justifies the need for increased nutrition related programs for medical students at WVU