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2016

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# Physician Perspectives on Nutrition Counseling and Nutrition Focused Continuing Medical Education in Texas

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## Abstract

**Background:** Medical nutrition education and training has been insufficient despite much research supporting the positive impact of proper dietary and lifestyle habits on overall patient health. Nutrition CME opportunities post-medical school are very limited.

**Research Question:** We undertook this study to assess Texas physician nutrition counseling practices and interest in nutrition-focused Continuing Medical Education (CME) opportunities that would enhance patient care.

**Methods:** A convenience sampling method was used to administer a brief validated online survey to physicians across Texas between May 2015 and August 2015. Participants (n=54) completed the survey which included information on demographics, incorporation of nutrition into patient care, and nutrition-focused continuing education opportunities.

**Results:** Texas physicians overwhelmingly reported insufficient incorporation of nutrition counseling into their practice and were in favor of additional CME opportunities focused on nutrition. 89% of physicians care for patients who require nutrition counseling “Sometimes” or “Usually/-Always.” However only 15% feel “Highly” confident when discussing nutrition with patients. A majority

(81%) of physicians reported increased likelihood to participate in webinars delivering research-based nutrition information due to their lack of nutrition training.

**Discussion:** To address the lack of CME opportunities which focus on nutrition, and to enhance physician confidence and ability to incorporate nutrition information when interacting with patients, CME courses focused on nutrition must be more readily available. Our findings indicate that Texas physicians recognize that nutrition-focused CME opportunities add value to their practices, and would welcome such learning opportunities.

## Introduction

Medical nutrition education and training has been insufficient despite much research supporting the positive impact of proper dietary and lifestyle habits on overall patient health. Although nutrition-related coursework during medical school could address this shortcoming, the majority of physicians report little or no such nutrition training and are thus are ill-equipped to provide research-based nutrition counseling. In 2010, a national survey found that half of all accredited medical schools across the United States offer at best 17 hours of nutritionally-related teaching, and 9% require no nutrition courses throughout the 4 year duration. (Adams, 2010) In those medical schools with dedicated nutrition coursework, such courses are often taught by non-physician health professionals. (Kiraly, 2014) In 2013, the Accreditation Committee of Graduate Medical Education released program requirements for trainees in medical disciplines including Internal Medicine, Preventive Medicine, and Cardiovascular Disease. Among each of these documents, the words “nutrition”, “diet”, and “lifestyle” are all absent. (“ACGME Program Requirements for Graduate Medical Education in Gastroenterology (Internal

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**Submitted:** 7/5/2016

**Revised:** 8/9/2016

**Accepted:** 9/5/2016

**Conflict of interest:** None

**Peer-reviewed:** Yes

Medicine), 2013) Most clinicians look to Continuing Medical Education (CME) offerings for post-graduate training. CME courses in general have been shown to be effective in educating healthcare providers about clinical topics. Given the poor emphasis on nutrition both during and post-medical school, there is a critical need for CME courses focused on nutrition and its incorporation into practice.

In recent years, there have been considerable advances in the science of nutrition which have documented the impact that diet and lifestyle choices have on health. Proper nutrition has the potential to positively impact various chronic conditions. Conversely, suboptimal nutrition has been shown to have adverse effects in both acute illnesses and chronic diseases. (Kris-Etherton et al., 2015) Seven of the ten leading causes of death are chronic diseases that possess a critical nutrition component (e.g. heart disease, cancer, diabetes). (CDC) In 2011, a survey distributed by the American Dietetic Association found that 64% of the American public considers doctors to be “very credible” sources of nutrition information. (*Nutrition and You: Trends 2011*, 2011) There is a need to improve physicians’ nutritional knowledge base and their expertise in order to match patients’ needs and expectations. Moreover, primary care physicians see a majority of the population annually which makes their interactions prime opportunities to advise patients about nutrition and lifestyle practices. Studies that examined barriers to nutrition counseling in primary practice report that physician feel inadequately trained and have poor self-efficacy to counsel on weight management among other nutrition related complications. (Smith, 2015) Currently there is a wide gap regarding what is needed versus what is being achieved. (Dimaria-Ghalili, 2013; Kushner, 1995) The value of this caregiver-to-client relationship cannot be underestimated.

The purpose of this study was to determine the current status of nutrition counseling (providing nutrition information to patients) in physician practices, and current methods of obtaining CME credits in nutrition-related topics. We hypothesized that physicians lack sufficient nutrition knowledge and desire more nutrition-focused CME opportunities to improve their understanding and ability to incorporate nutrition counseling into their practices and thus improve patient health outcomes.

## **Methods**

### *Sample and Study Design*

The current study was part of a larger research program designed to provide nutrition education webinars to physicians as Continuing Medical Education (CME) credits. Physicians across Texas were recruited through convenience sampling by email contact. Only one inclusion criteria was in place for survey participation: participants had to possess either MD or DO credentials. This study was approved by the Institutional Review Board of Texas A&M University.

### *Procedures*

Our survey was developed using a combination of questions from two previously validated surveys which were supplemented by additional questions. (Frank, Carolina, Hui, & Erica, 2010; Spencer et al. 2006) The eight additional questions we created addressed nutrition awareness, nutrition-focused education interest and current methods of obtaining CME credit to support our outcome objective. The survey was then reviewed by a panel of experts including two physicians and four physician assistants for content and linguistic validity. Several expert recommendations were incorporated into the final draft. The self-administered survey consisted of 20 questions addressing the following domains:

- 1) Demographic data: age, gender, credentials, practice geographical location and specialty area of practice
- 2) Nutrition practices and perceived confidence in nutrition knowledge
- 3) Type of community practice: nutrition awareness, dietitian availability and usage
- 4) Methods of obtaining CME

Participants completed the survey online between May and June, 2015. Administration was achieved using Qualtrics Online Software links to the survey ([www.qualtrics.com](http://www.qualtrics.com)) which was distributed to a convenience sample via administrative contacts. Participation in the survey by physicians was entirely optional, and at the discretion of each individual receiving the survey.

### *Data Analysis*

Measures of demographics, nutrition education practices, and methods of obtaining continuing education credits were used in this analysis. Data analysis was conducted with Qualtrics and GraphPad Prism. (version 5, GraphPad Software Inc, La Jolla,

CA, 2007) We performed descriptive analyses and two-tailed Pearson’s correlation for questions within the survey.

## Results

### *Characteristics of physician participants*

A total of 58 participants completed our survey; however, one individual did not provide any credentials and three individuals did not identify themselves as MD or DO, which excluded them from all analyses. The sample included more males than females (57% vs. 41% respectively) and one physician who selected “Prefer Not to Answer.” Table 1 summarizes demographic and practice data of our final sample of 54 physicians. The majority of physicians (n=44, 82%) were credentialed as “MD”

<b>Table 1: Texas physicians self-reported demographic data (n=54)</b>	
<b>Current Credentials</b>	<b># of Participants (% total)</b>
MD	44 (82%)
DO	6 (11%)
MD/PhD	4 (7%)
<b>Gender</b>	
Male	31 (57%)
Female	22 (41%)
Prefer Not to Answer	1 (2%)
<b>Current area of practice</b>	
Family Practice	15 (28%)
Emergency Medicine	5 (9%)
Internal Medicine	6 (11%)
Obstetrics-Gynecology	4 (7%)
Pediatrics	7 (13%)
Oncology	0 (0%)
Cardiology	1 (2%)
Endocrinology	3 (6%)
Other	13 (24%)
<b>Age, years</b>	
25-35	23 (42%)
36-45	8 (14%)
46-55	7 (12%)
55+	16 (29%)
<b>Years as a practicing physician</b>	
0-2 years	16 (30%)
2-5 years	6 (11%)
5-10 years	8 (15%)
10+ years	24 (44%)
<b>Current location of practice</b>	
Rural	2 (4%)
Suburban	24 (44%)
Urban	28 (52%)
Online	0 (0%)

(Doctor of Medicine), whereas (n=6, 11%) were credentialed “DO” (Doctor of Osteopathic Medicine) and (n=4, 7%) indicated dual credentials “MD & PhD.” Nearly 30% of physicians described their practice as Family Medicine; however, there were thirteen practices which identified various “other” focus specialties. Ages of physicians ranged from 27-68 years old, the mean age was 44 years old. For the purposes of analysis ages were split into the following groupings: ages 25-35 yrs. (42%), 36-45 yrs. (14%), 46-55 yrs. (12%) and 56+ (29%). The number of years in practice ranged from 0-2 years to 10+ years (30% and 44% respectively).

### *Practice Characteristics*

The majority of physicians (96%) reported that they practice in either urban or suburban areas; only two participants practiced in rural areas. Over half of physicians (52%) reported that they do not work in a practice that promotes nutrition to all patients. Fifty-six percent reported awareness of a registered dietitian in their work facility. Only 17% of all physicians “Usually/Always” refer patients to a registered dietitian for follow-up consultation. (Table 2)

### *Incorporation of Nutrition into Physician Practices*

The self-reported proficiency of physicians’ nutrition knowledge and practice was low. Table 2 summarizes all nutrition related practices and methods of obtaining CME credits of our sample of 54 physicians. Only 15% of physicians felt “Highly” confident integrating nutrition information during patient interactions. Among all physicians, 70% reported that they “Usually/Always” see patients who require nutrition counseling; whereas only 11% reported that they “Never” do. A follow up question inquired about frequency of physicians providing nutrition.

### *Methods of Continuing Education*

Only twenty-four physicians (44%) identified that they had ever participated in a seminar, webinar or conference that focused on nutrition. A majority of physicians (67%) reported that they would be interested in a webinar on nutrition. The top two rated methods of obtaining continuing education included self-study programs (56%) and in-person courses (33%). 65% of physicians reported utilizing webinars as a preferred self-study method. Additionally, online interactive modules, similar to webinars with

emphasis of interactivity within the session, were selected by 68% of physicians as common types of self-study programs they participate in. Findings indicated that 81% of physicians were “Highly” or “Somewhat” likely to participate in a nutrition education webinar for CME credits. (Table 2)

### Discussion

The present study constituted a needs-assessment regarding the importance of addressing the degree of nutrition competence among Texas physicians. A key finding was the current lack of confidence reported by primary care physicians in discussing nutrition concepts with patients, despite the high degree of interest in nutrition-focused education activities.

There is ample documentation of the lack of patient directed nutrition counseling by physicians. One of the nutrition objectives in Healthy People 2020 was to “increase the proportion of physician office visits that include counseling or education related to nutrition or weight.” (Healthy People 2020) Surveys have shown that physicians have positive attitudes about nutrition and believe that over half of their patients would benefit from nutrition counseling. (Wynn, Trudeau, Taunton, Gowans, & Scott, 2010) Yet results from a survey found that 68% of physicians spend five minutes or less discussing diet and nutrition with their patients; this number is likely to have declined further. (Kushner, 1995) In 2014, Kris-Etherton and colleagues reported that physicians play key roles in the healthcare system both individually and as part of a team with other healthcare professionals. The importance of nutrition has been acknowledged, yet both nutrition education and training are needed to effectively influence patient care. (Kris-Etherton et al., 2014) There is an opportunity, as well as a pressing need, to provide physicians with CME focused on nutrition.

Vetter and colleagues found that only 14% of physicians felt adequately trained to provide nutrition counseling to their patients. (Vetter, 2008) Specific barriers, in addition to lack of formal nutrition training, include time limitations, poor reimbursement, insufficient skills, low self-efficacy and lack of confidence in providing lifestyle counseling. (Foster, 2003; Sussman, 2008; Vetter, 2008) Results from our survey found infrequent nutrition related counseling by physicians, and are similar to findings reported by others. (Bleich, 2012; Frank et al., 2010)

<b>Table 2: Texas physicians self-reported nutrition education interests (n=54)</b>	
<b>How often do you see patients who require nutrition education?</b>	<b># of Participants (% total)</b>
Never/Rarely	6 (11%)
Sometimes	10 (19%)
Usually/Always	38 (70%)
<b>How often do you talk to your patients about nutrition?</b>	
Never/Rarely	10 (19%)
Sometimes	19 (35%)
Usually/Always	25 (46%)
<b>What is your confidence level in performing nutrition counseling?</b>	
Not at all	6 (11%)
Somewhat	40 (74%)
Highly	8 (15%)
<b>Are you in a practice that promotes nutrition awareness to all patients?</b>	
Yes	26 (48%)
No	28 (52%)
<b>Is there currently a Registered Dietitian working at your facility/hospital/practice?</b>	
Yes	30 (56%)
No	24 (44%)
<b>With a typical patient, how often would you refer them to a Registered Dietitian?</b>	
Never/Rarely	19 (35%)
Sometimes	26 (48%)
Usually/Always	9 (17%)
<b>Have you ever attended a seminar/webinar/conference about nutrition?</b>	
Yes	24 (44%)
No	30 (56%)
<b>Would you be interested in a webinar on research-based nutrition education?</b>	
Yes	36 (67%)
No	18 (33%)
<b>What method best describes your method of obtaining Continuing Education credits?</b>	
Self-Study Programs	30 (56%)
In Person Course	18 (33%)
Internet Point of Care	9 (17%)
Manuscript Review	2 (4%)
Faculty Teaching	15 (30%)
<b>If you selected "Self-Study Programs", which programs do you participate in? (Select all that apply)</b>	
Paid Online Webinars	5 (15%)
Free Online Webinars	17 (50%)
Podcasts	9 (26%)
Online Interactive Education Modules	23 (68%)
Printed Monographs	12 (35%)
<b>How likely are you to participate in a nutrition education webinar for Continuing Medical Education credits?</b>	
Not at all	10 (19%)
Somewhat	31 (57%)
Highly	13 (24%)

Brief education and training, such as CME courses, have been documented to assist in improving physician knowledge, self-efficacy and frequency of nutrition and lifestyle counseling. (Dacey, Arnstein, Kennedy, Wolfe, & Phillips, 2013; Eisenberg et al., 2012; Kahn, 2006; Polak et al., 2016; Welsh et al., 2015) After a brief review among the state level medical associations across the country, less than 20% of the medical education platforms listed a nutrition-focused CME course. A novel study using multi-platform CME approach (live and online programs) demonstrated that CME courses may be an effective tool to fill knowledge gaps and potentially positively impact patient health. (Lee et al., 2016)

Beyond simply making the physician responsible for providing nutrition education to patients, a 1995 report published by the American Society for Clinical Nutrition recommended that major medical centers employ a full time employee with nutrition expertise as a role model for nutrition education in medical school and residency curriculum. (Halstead, 1998) The majority of physicians who completed our survey reported often seeing patients requiring nutrition counseling, yet less than half regularly communicated with or referred patients to a registered dietitian. A patient-centered medical home healthcare model recognizes the role of the dietitian and emphasizes the importance of a healthcare team. Relationships between physicians and dietitians are a strong factor influencing referrals, a critical component of healthcare teams. (Mitchell, Macdonald-Wicks, & Capra, 2012)

Further studies are needed to identify barriers and discover alternative approaches to educate physicians about nutrition and tactics to incorporate nutrition into practice, in part by utilizing a healthcare team approach.

Our study has several limitations that should be considered. First, our participants were limited to Texas and mostly from suburban/urban practice locations. Due to our limited sample, the findings cannot be generalized to all of Texas let alone nationwide. We chose a convenience sample by sending emails to select representatives who have access to listserves of physicians; this may have introduced selection bias and did not reach all 43,000 Texas physicians. Although our survey did not specifically address the nutrition background of physicians, it obtained feedback from physicians related to their interest in future nutrition-focused educational opportunities. Since our survey was

voluntary, we believe physicians who responded were highly motivated with respect to the importance of integrating nutrition counseling in their practice.

Despite these limitations, our study supports the contention that physicians indeed lack but desire to incorporate nutrition counseling into their practice. Physicians understand their potential role as nutrition educators can improve the health of their patients. We found that physicians do acknowledge a lack of confidence in being able to provide nutrition counseling. Interestingly, referral to professionals with an expertise in nutrition (i.e. registered dietitians) is infrequent. Further studies are needed to determine effective and efficient mechanisms to educate physicians on nutrition topics. For example, the possibility of nutrition education via online or in-person delivery made available as CME credits might be considered. Providing nutrition-focused education opportunities to physicians will add value to their practices. In addition to improving their confidence and self-efficacy in providing nutrition counseling, interactions and referrals to registered dietitians may increase. These are positive outcomes, which may ultimately decrease recurring visits from patients by incorporating nutrition and lifestyle-responsive approaches to patient care.

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