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**DO PHYSICIANS PERCEIVE THE ROLES OF NUTRITIONISTS AND REGISTERED
DIETITIAN NUTRITIONISTS AS DIFFERENT?"**

By

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ABSTRACT

Background: Dietitians are still divided on whether to use the credential Registered Dietitian (RD) or Registered Dietitian Nutritionist (RDN). The option for dietitians to utilize RDN gained support in a 2013 joint committee meeting. The ambiguity between the terms dietitian and nutritionist leave many individuals unable to discern between the two. The opportunity for dietitians to treat greater quantities of patients is influenced by physicians' understanding of dietitians' roles and the public's understanding of services they provide.

Objective: To determine how the terms dietitian and nutritionist are understood and referred to in the healthcare setting and whether RD or RDN better communicates their role and services to physicians and the public.

Design: This mixed-methods study utilized *Qualtrics Survey Software* to obtain anonymous responses from physicians on a 10-multiple choice quantitative question survey, including one qualitative free response question and demographic characteristics.

Participants: Loma Linda University (LLU) Alumni, 21 years of age or older, practicing within the United States with an email maintained by LLU Health, Office of Advancement.

Main outcomes: Physicians' knowledge of roles of Nutritionists versus RDN's including their use of the titles interchangeably.

Statistics: Data was analyzed using SPSS Statistics Software version 25.0. The Chi-Square test of independence was used to determine significant relationships between two categorical variables.

Results: A total of 40.9% of respondents claimed to use Dietitian and Nutritionist interchangeably, while 48.6% did not and 10.5% were unsure. A total of 52.3% claimed there was a difference, while 32% were unsure and 15.7% identified no difference. A total of 69.2% believed Dietitian was most representative of the role of RD versus Nutritionist.

Conclusions: Results indicate that awareness and knowledge of the services provided by Dietitians and how they differ from Nutritionists is low among physicians. Dietitians should aim to increase awareness of their services through use of the longer credential RDN.

INTRODUCTION

The differences between the roles of dietitians and nutritionists are historically ambiguous. The title “dietitian” has an earlier beginning than that of “nutritionist” and originates before a professional organization was ever established. The word *dietetics* was first included in the 1839 Dunglison Medical Lexicon and was defined as “a branch of medicine comprising the rules to be followed for preventing, relieving, or curing disease by diet.”¹ The term *dietitian* was later coined in 1899 at the Lake Placid Conference on Home Economics and was then defined as “persons who specialize in the knowledge of food and can meet the demands of the medical profession for diet therapy”. It implied that dietetics should be limited to treatment of the sick, as most dietitians at the time were in hospitals.¹ In 1917 two dietitians from the American Home Economic Association, Lulu Graves and Lenna Cooper, created the American Dietetic Association (ADA) during a meeting to discuss emergency needs for World War I.² It was not until 1920 that several dietitians were beginning to be known as “nutrition workers”, which was later changed to the title, “nutritionist”.³ In 1940, the ADA updated the definition of dietitian to “a person who had college training in the science of nutrition and management and is proficient in the art of feeding individuals and groups”.⁴ A nutritionist in a public agency was a “qualified, professionally trained person, who directs or carries on a program of activities dealing with the application of scientific knowledge of nutrition to the prevention of disease and the promotion of positive health.”³ According to AND a Nutritionist is “a person who studies nutrition and/or provides education or counseling in nutrition principles. This individual may or may not have an academic degree in the study of nutrition and may or may not actually work in the field of nutrition.”⁵

Since December 1, 2013 to present, approximately 89,300 dietitians have been registered in the United States through the Commission on Dietetics Registration (CDR).⁶ The opportunity for dietitians to treat greater quantities of patients is influenced by physicians' understanding of dietitians' roles, as well as the public's understanding of services they provide. In a 2006 study with 365 participants, referenced by Kress and Lisagor in *Today's Dietitian* magazine, 21% of the general public surveyed believed that nutritionists were more qualified than RDNs, when dealing with general food-related issues. Additionally, the majority had the same perception when discussing food-related health issues. Nearly one half of all respondents were not at all sure who was more qualified.⁷ A 2000 study conducted in Aberdeen, Scotland by Crocker, J. surveyed 165 randomly selected individuals from two separate supermarkets to assess the general public's understanding of the roles of dietitians.⁸ They compared perceptions of physiotherapists and radiographers in the study, which they believed were more well-known than RDNs. They found the public's understanding of the physiotherapist's role was "good", however they had a poorer understanding of both radiographers and RDNs roles in healthcare. The study found that 26% of the sample population thought dietitians distributed and collected hospital menus and 21% thought dietitians prepared meals in the hospital. Furthermore, doctors were the preferred choice for nutrition information, yet according to a 2001 paper, referenced by Kress et al, medical students were shown to average between 6-18 hours of optional nutrition education throughout their entire coursework.⁷ It should also be noted the general public reported making wide use of the media for their nutrition information.⁸

These studies demonstrate that the perceptions of dietitian's roles are not only a relevant issue, but a global one as well. Further evaluation of the issue is necessary to assist in clarifying misunderstandings of the profession. This may be one of the many reasons the ADA chose to

change the name of their organization. On January 1, 2012 the ADA officially changed its name to The Academy of Nutrition and Dietetics (AND). The name change was enacted to better reflect the strong science background and academic expertise of members and the academy's mission, vision, philosophy, and values.⁹ In a 2013 joint meeting between the Commission on Dietetic Registration (CDR), the Accreditation Council for Education in Nutrition and Dietetics, the Council on Future Practice, the Education Committee, and the Nutrition and Dietetics Educators and Preceptors DPG, support was gained for moving forward with the use of the title Registered Dietitian Nutritionist (RDN) as an alternative to the original title Registered Dietitian (RD).¹⁰

The decision by AND to include “nutritionist” in the credential of dietitian, communicates a broader concept of wellness including prevention of health conditions beyond medical nutrition therapy as well as treatment of those conditions. Additionally, inclusion of “nutrition” in the Academy's name change reflects increased awareness of their role as the primary organization in food and nutrition by the media, government agencies, allied health organizations and consumers.¹⁰ In just the first six months following the new change, media impressions for the Academy's outreach activities increased by 10 billion.¹⁰ Lastly, the change to RDN indicates that all dietitians are nutritionists, but not all nutritionists are dietitians.¹¹

The titles “dietitian”, RD and RDN are all regulated nationally by AND and CDR, requiring successful completion of nutrition and dietetics coursework through an accredited didactic program, a baccalaureate degree (to become a minimum of a graduate degree by January 1, 2024) and completion of 1,200 clock hours of supervised practice.^{11,12} The title “nutritionist” by itself within the United States of America however involves several laws which vary from state to state leading to inconsistencies. Only some states regulate the title “nutritionist” and set

requirements, such as an advanced degree in nutrition, etc.⁵ Currently, only 16 states permit Registered Dietitians to utilize the title “nutritionist”, making it illegal to use the title of, or portray yourself as, a “nutritionist”. Essentially, all “nutritionists” within those 16 states must be RDNs.

The remainder of the states within America allow the use of the title “nutritionist” with an assortment of restrictions. There are four states that allow an individual to call themselves a nutritionist, without holding the title of RDN, if they have a bachelor’s or master’s in one of the following majors: Dietetics, Foods and Nutrition, Food Systems Management, Human Nutrition, or Nutrition Education. Illinois, Delaware, and Maryland require a bachelor's degree and Minnesota requires a master's degree, with all four states requiring an additional 900 supervised clock hours to become a “nutritionist” or “licensed nutritionist” (LN).¹³ The remaining 30 states, including California, do not have any regulation on the title “nutritionist” and therefore there is no legal opposition for individuals to perform nutrition counseling on their own.¹³ Essentially, in these states an individual with any level of education, whether a high school diploma or otherwise, may advertise and self-employ themselves as a “nutritionist” without any state regulation or legal opposition.

Literature regarding whether physicians understand the education and qualifications associated with the titles RD and RDN is currently lacking. A need exists to determine how physicians, as healthcare providers, understand and utilize the titles “dietitian” versus “nutritionist”. Their use of each term influence referrals and whom patients assume are the most qualified to assist in diet and food-related health. In 1990, Gaare, J., et al published a study examining the issues on the understanding of the dietetics profession within the clinical setting, by surveying physicians’ and dietitians’ perceptions of ideal and actual performance. The results

found that Dietitians identified themselves as the primary decision makers more than 50% of the time. In contrast, only 10% or less of the physicians saw the dietitians as the primary decision makers in any area other than the selection of caloric supplements.¹⁴ Seven years later, an additional study was published by, Boyhtari, M., et al in 1997 on “The Role of Clinical Dietitians as Perceived by Dietitians and Physicians”. This study surveyed 410 randomly selected physicians and clinical dietitians revealing large disparities of the perceived roles of the clinical RDN. The duties that RDNs believed were not associated with their role included food selection, food satisfaction, and menu distribution. Physicians generally believed the undertaking of patient rounds and managing diseases via therapeutic diets or nutrition support was less associated with the role of the RD, contrary to the RD’s beliefs and qualifications.¹⁵

In the recent years following the option to include RDN as a credential, many dietitians are still divided on whether they find the use of RD or RDN as more appropriate. Additionally, due to the ambiguity between the terms – dietitian and nutritionist, many individuals are not fully aware of how the dietitian’s qualifications set them apart from nutritionists. The purpose of our graduate student research study is to determine how the terms dietitian and nutritionist are understood and referred to in the healthcare setting by physicians. The information gathered from this study may provide insight on the necessity of adding “nutritionist” to the registered dietitian credential, including whether it has been a helpful modification for the dietetics profession. Moreover, this study has the potential to support dietitians in understanding how to better communicate their role and services to healthcare professionals and the public.

SUBJECTS

Approval for this study was sought from Loma Linda University’s Institutional Review Board. Approximately 4,100 Loma Linda University (LLU) Alumni physicians received an

email with an invitation to participate in an anonymous Qualtrics survey through an attached link. E-mails were be sent through Loma Linda University Health, Office of Advancement. Participants include physicians of any medical specialty and level of practice, aged 21 years or older. The sample of participants included all LLU alumni physicians with current e-mail addresses on file as maintained by the Loma Linda University Health, Office of Advancement. Those practicing outside of the United States of America were excluded.

METHODS

This was a mixed-methods study consisting of an initial peer review group of physicians in order to determine effectiveness and clarity of questions as well as appropriate survey response options from which to choose. Once finalized, a survey questionnaire created using *Qualtrics Survey Software* was e-mailed to our subjects. Surveys e-mailed contained a short introduction and statement of acceptance whereupon clicking the link provided, the subjects consented to participate in the study. No specialized application or device was necessary in order to complete the survey and took an estimated 10 minutes to complete. The survey began by collecting demographic information including age, gender, location, specialty and duration/level of practice. The remaining questionnaire consisted of 10 multiple choice questions and a single open-ended, qualitative question at the end for further elaboration from participants on what they believed the difference is between Nutritionists and Dietitians, in their own words. The multiple-choice questions had a variety of possible pre-selected answers as opposed to free response in order to better analyze the collected data. Answer options consisted of “yes”, “no” or “unsure” for close-ended questions and “Registered Dietitian”, “Nutritionist”, or “Licensed Nutritionist” for role specific questions. Lastly, all participant identification was kept anonymous through *Qualtrics Survey Software*.

Examples of questions included in the Questionnaire:

- *Do you use the term nutritionist and dietitian interchangeably?*
- *In your opinion is there a difference between Nutritionist or Registered Dietitian?*
- *For a patient requesting assistance with general weight loss, to whom would you refer the patient?*

PROCEDURES

Approximately 4,100 subjects identified as Loma Linda University Medical School alumni through the Loma Linda University Health, Office of Advancement. E-mails were sent out enclosing the online survey disclosing the opportunity to participate anonymously. Once willing to participate, the survey was accessible through the link provided with a maximum completion time of 10 minutes. By clicking on the survey's link, the subject granted consent to take part in the study.

STATISTICAL ANALYSIS

Our statistical analysis consisted of both quantitative and qualitative data. A Chi-Square test of independence was utilized to evaluate categorical differences in demographic characteristics across each question. In addition, total knowledge scores were obtained based on scoring the 10 general knowledge questions. The regression was then used to find the impact of demographic characteristics on total knowledge scores. Finally, qualitative data analysis was employed to address the open-ended question.

RESULTS

A total of 183 physicians completed the survey. Demographic characteristics of participants are shown in Table 1. The majority of participants were male (71.6%) versus female (28.4%) and age 51 years or older (69%). Attending physicians were the largest group who responded within the category of experience (87.4%). The majority of physicians were still currently practicing (72.1%) and with a duration of 21 years or longer (66%). Despite all physicians having graduated from LLU medical school in California, more than half were practicing out of state (54.8%). The type of practice each physician belonged to was mostly an even distribution between private, group and hospital (29%, 29%, and 40%, respectively).

Table 1: Demographic Characteristics of Survey Participants

Characteristic	N	%	Characteristic	N	%		
Gender	Male	131	71.6	Currently Practicing	Yes	132	72.1
	Female	52	28.4		No	51	27.9
Age (years)	21-30	5	2.7	Duration of Practice (years)	1-5	25	13.7
	31-40	30	16.4		6-10	18	9.8
	41-50	22	12.0		11-20	19	10.4
	51-60	28	15.3		21-40	81	44.3
	61-70	40	21.9		40+	40	21.9
	71-80	29	15.8	State of Practice	California	84	45.2
	81+	29	15.8		Not California	102	54.8
Experience	Resident	18	9.8	Type of Practice	Private	53	29.0
	Fellowship	5	2.7		Group	53	29.0
	Attending	160	87.4		Hospital	72	40.4

Quantitative Results

Although there was a total of 10 closed-ended questions, our results focused on three questions most relevant to the direction of our study. The questions were as follows: Do you use the title/words Nutritionist and Dietitian interchangeably? In your opinion is there a difference between Nutritionist or Dietitian? Which title do you feel is more representative of the role of a dietitian? The Chi-Square test of independence showed five statistically significant associations between demographic variables and answers to the previous three questions, shown in Table 2.

Physicians who were not currently practicing ($p=0.007$) or had a duration of practice 21 years or longer ($p=0.003$) were associated with knowing a difference exists between a Dietitian and Nutritionist. Resident physicians ($p=0.007$) or those who were age 50 years or younger ($p=0.029$) were more likely to use the words Dietitian and Nutritionist interchangeably. Lastly, a longer duration of practice was associated with reduced use of the words Dietitian and Nutritionist interchangeably ($p=0.002$).

An almost even number of respondents claimed to use Dietitian and Nutritionist interchangeably compared to those that did not (40.9% and 48.6%, respectively) and a smaller amount was unsure (10.5%). When asked if there was a difference between the two terms, the majority suggested there was a difference (52.3%) compared to those that were unsure (32%). When asked which title is most representative for the role of Dietitian, the majority of respondents said “Dietitian” (69.2%). In addition, total knowledge scores for total correct survey answers out of the nine close-ended nutrition knowledge questions were obtained. Regression analysis found demographic characteristics including gender, duration of practice and experience level to have an impact on total knowledge scores. Females scored higher compared to males ($p=0.034$). Duration of practice 16 years or longer scored higher than those with less duration ($p=0.001$). Physicians with the experience level of fellowship or attending, scored higher than Residents ($p=0.079$), although it should be noted that only five respondents were attending physicians.

Table 2. Frequency and Significance of Selected Demographics and the terms Dietitian and Nutritionist

Aware of the difference between the term dietitian and nutritionist		
	%	P-value
Not currently practicing	71	0.007
Currently practicing	44	
≥ 21 years of practice	61	0.003
< 21 years of practice	36	
Do NOT use the term dietitian and nutritionist interchangeably		
Age 51 and above	57	0.029
Age 50 and below	32	
Attending	51	0.007
Resident	39	
With more than 21 years of experience	63	0.03
With less than 21 years of experience	43	

Qualitative Results

In order to learn more about the factors guiding the opinions and answers of participants, an open-ended free response question was included at the end of the survey to which a total of 156 physicians responded. Qualitative themes for the question: "In your own words, please express what you believe are the main differences between a Nutritionist and a Dietitian," were determined by manual identification of key terms and phrases which were divided into categories to illustrate several trends. These themes are identified in Figure 1. A total of 36.5% of respondents did not know or were unsure whether a difference between a Dietitian and Nutritionist existed. A total of 37.2% respondents claimed there was a difference, which they believed to be related to education. In general, they stated a Dietitian must complete a specific course or program, resulting in a degree or license, while a Nutritionist does not require formal education. Additional themes emerged on the differences between Dietitians and Nutritionists in the form of perceived roles. Dietitians were mostly seen as inpatient healthcare workers who focus on specific illness or disease, or providers of meal plans and dietary recommendations. Nutritionists were mostly seen as providers of general nutrition information related to lifestyle coaching and as providers of individual nutrition information related to specific diseases.

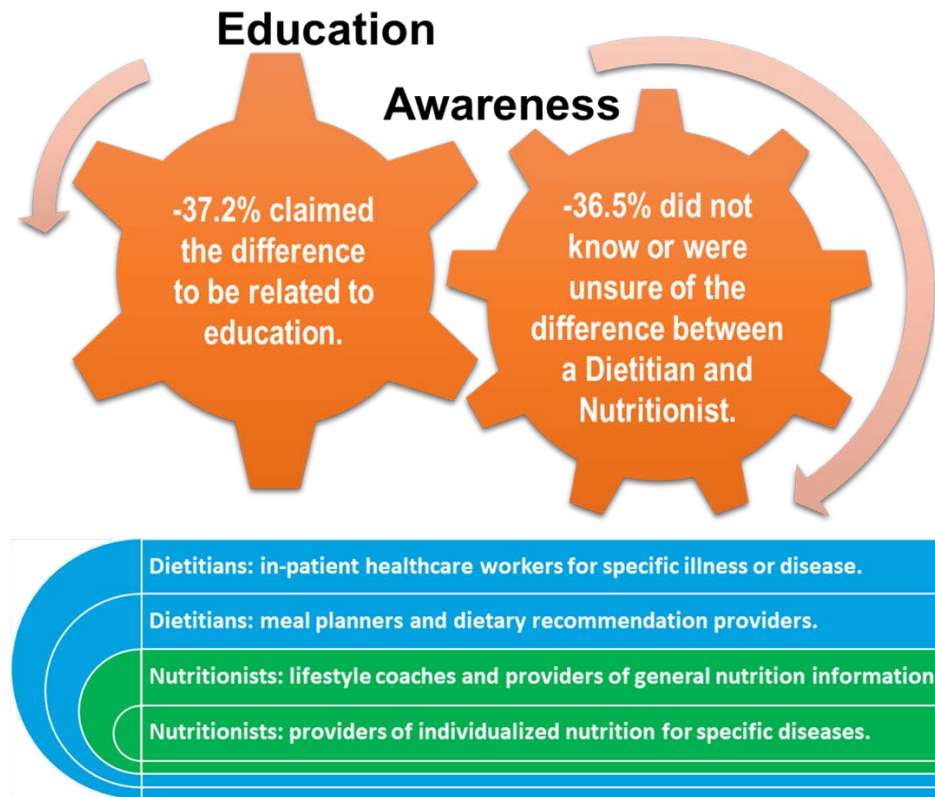


Figure 1. Emerging themes on the differences between Dietitians and Nutritionists by physicians (n=156)

DISCUSSION

This study aimed to identify the perceptions and beliefs of physicians on the roles and differences between Nutritionists and Registered Dietitians. To achieve this, we asked Loma Linda University (LLU) Alumni physicians directly if they understood there was a difference and what they understood the difference to be. We hypothesized physicians would perceive the roles between the two as the same, use both terms interchangeably more often and use the word “nutritionist” most often when referring to roles of Registered Dietitians.

With over 100 years of the profession of Dietetics, to our knowledge, the latest study regarding roles of RDNs was published in the year 2000, focusing on the public’s understanding

of the roles of Dietitians compared to other Allied Health professionals. The latest literature which consists of physicians as the population studied was in the year 1997. Beyond these studies, the research is attenuated and sporadic. This data is long overdue for the Dietetics profession to further understand where their perceived roles reside within healthcare providers who influence the public and potential patients/clients daily. Because the roles of RDNs is so vast between Food and Nutrition Sciences, including research (Domain I), Nutrition care for individuals and groups also known as Medical Nutrition Therapy (MNT) (Domain II), and management of food and nutrition programs (Domain III), it is likely to confuse many individuals as to the qualifying roles of RDNs. However, it is also this prodigiousness of the role of RDNs that allows their versatility to benefit a wide range of population groups to better the health and wellness of all individuals.

Our results indicate, almost half of physicians did not believe there was a difference between the two titles or were unsure. Additionally, 40% claimed to use the titles interchangeably. This may represent an inadequacy of interprofessional education throughout the medical field, even beyond Loma Linda University alumni. Physicians should have more interdisciplinary knowledge compared to others due to their responsibility to work with different healthcare professionals and provide appropriate referrals for patients. It could therefore be assumed they should be the most informed of the titles, roles and responsibilities of other healthcare professionals, such as registered dietitians. We chose to interview physicians based on this premise, to establish what may be the ceiling of knowledge amongst healthcare professionals with a high level of education and interdisciplinary experience. Though it may be likely that other healthcare professionals have a more sufficient grasp on further interdisciplinary fields due to their more frequent interactions within healthcare settings, it is the physician that is

responsible for informing patients on which healthcare professionals should be seen beyond their scope of practice. This study is a small sample intended to gain insight on the perception's physicians have on Dietitians and Nutritionists and not intended to criticize physicians' nutrition knowledge or their practice procedures in any way. One source of education for the general public, however, are physicians so it is important that they are familiar with which professional is most qualified for private consults.

We did notice a significant relationship between the variables not currently practicing and duration of practice for 21 years or longer and a higher percentage of reporting there is a difference between dietitians and nutritionists. Similarly, physicians age 51 and older, attending physicians and those with at least 21 years of experience, had a higher percentage of claiming not to use the two terms interchangeably. We believe physicians no longer practicing may be retired which may translate to greater experience in the field. These variables indicate that older and more experienced physicians were more likely to understand the profession of dietetics. This may be due to the start of their careers and education during a time before the word nutritionist had started to popularize. As mentioned in the literature¹, the word *dietitian* was coined in 1899 at the Lake Placid Conference on Home Economics and was defined much earlier than *nutritionist*. Only recently with the rise of fad diets, health conscious eating trends, and social media have individuals come to self-teach and refer to themselves as nutritionists. With more competition in the field of health and wellness, we may need to educate the public on the importance of speaking to nutrition or diet specialists credentialed as a Registered Dietitian Nutritionist as opposed to simply a nutritionist.

The population set used is appropriate for this research to be the first of its kind given the history of Loma Linda University's (LLU) nutrition and dietetics founders and founding

programs. This population is a cohort of physicians who studied at a facility which opened in 1905 by the design of Ellen G. White – an Adventist spiritual leader, well-known for her nutritional teachings. Known as The College of Medical Evangelists at the time, LLU nutrition program opened before their medical school in 1908. Additionally, as the only blue zone in the United States, LLU is well-associated with its emphasis in health, wellness, and nutrition, especially with their religious and community focus on lacto-ovo vegetarian diets. Because of this background of LLU¹⁶, we sought to utilize physicians who studied at a nutritionally centered university, as an outset for future research as data on this topic is currently lacking. Given that this population of physicians has studied side-by-side with an accredited dietetics program of which there are only two in southern California, this population would be assumed to have adequate knowledge and understanding of the roles and qualifications of a RDN compared to other medical schools. Data collected from this study provides us with parameters as to how populations may vary from medical school program to program with potential for future research across the United States. Because of this, it may be assumed that understanding of RDN's roles reflect lower data scores in other populations across the United States and other countries, which is why further data on this topic with varying populations is encouraged.

Our study was not without limitations and room for improvement. It may have been beneficial to ask participants whether they had a close relative working or educated in the field of dietetics as this may have affected some of their beliefs and knowledge. Additionally, our sample only represents a small portion of the population as well as a very unique cohort of physicians due to receiving their education from a nutrition focused university.

CONCLUSION

Our results indicate that awareness and knowledge of the services provided by Dietitians and how they differ from Nutritionists is inadequate. Results found only a small number of physicians (37%) did recognize that it is education for Dietitians that sets them apart from those utilizing the title Nutritionist. Additionally, an understanding that RDNs are the food and nutrition experts for proper patient referrals in Nutrition does not seem to be reflected within the knowledge scores. Unfortunately, a nearly equivalent number of physicians also revealed they have no indication of the difference between the two titles or terms. This left only a small number of physicians (26%) reporting that they understand Dietitians to have varying qualifying roles. However, within our open-ended qualitative data, not a single physician identified that a Dietitian is the only regulated title requiring set education and monitored credentials both nationally, within the United States of America, but also throughout many other countries as well.

These findings from a population of physicians which studied at a nutrition-based medical university indicate that there are likely even larger discrepancies amongst physicians in other populations around the country. It is important for physicians to understand the roles of RDNs and that they are a significant and important resource for physicians to utilize when encountering food and nutrition-based issues amongst patients. Dietitians should aim to increase awareness of their services and use the credentials RDN to better communicate their roles as incorporating “nutritionist” into their title will likely provide a broader understanding of the roles of dietitians amongst healthcare professionals and the general population alike. Additionally, increased interdisciplinary education is necessary within healthcare professional universities to clarify roles of dietitians so that patients are appropriately referred to credentialed Dietitians.

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