

IDENTIFYING ONE OF THE MOST MAIN HURDLES ON THE PATH TO THE CERTIFICATION OF PHYSICIAN NUTRITION SPECIALISTS

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ABSTRACT:

Aim: Lack of Physician Nutrition Experts on medical school cognitive abilities is a major impediment to nutrition literacy between physicians. These nutrition experts are in a position to persuasively advocate for changes in the curriculum of medical schools besides residency programmes, in addition they may also serve as role replicas for trying to incorporate nutrition into patient care.

Methods: To tackle those subjects, Intersociety Professional Nutrition Education Coalition established the example for PNSs that remains intended to entice so greatly physicians into the ground, espoused standards of education for graduate training of PNSs, and founded the American Board of Physician Nutrition Professionals as a cohesive mechanism for guaranteeing PNSs.

Results: This page explains the consensual paradigm as well as particular training criteria. Additionally, it describes the characteristics of the ABPNS as well as its history. It is the intention of American Board of Professional Nutrition Specialists to make their certificate the preeminent and most complete certification available to medical professionals who seek to establish nutrition as an area of specialty. Qualification is open to medical professionals whose educational backgrounds are in any of the subspecialties that are pertinent to preventive medicine.

Conclusion: It is envisaged that uncertainty training occasions remain made accessible in the diversity of venues and if they remain combined through doctors' additional professional interests, then a greater number of physicians may choose nutrition as a field of specialty interest. The ABPNS welcomes comments and suggestions from its peers from all around the globe.

Keywords: Physician Nutrition Experts, medical school, major impediment.

INTRODUCTION:

The education of nutrition in medical colleges and internists is often deficient, despite the fact that there is widespread consensus that the education of medical professionals must involve a concentration on the connections between food and illness [1]. Therefore, a large number of doctors continue to have an inadequate understanding of how nutrition plays a part in the diagnosis and treatment of illness. Lack of Physician Nutrition Specialists on medical school capacities is a major impediment to nutrient literacy between many physicians [2-8]. These nutrition experts are in a position to efficiently advocate for changes in the curriculum of medical schools and residency programmes, and they can also provide role models for combining nutrition into clinical outcomes [9]. In 2018, Intersociety Professional Nutrition Education Consortium remained established through purpose of encouraging professional nutrition organizations in Pakistan to work together in order to solve those concerns [10].

IPNEC's goals remained to progress the paradigm for PNSs that could entice extra physicians into field,

to propagate education systems for doctoral studies of PNSs, in addition to create the cohesive mechanism for accrediting PNSs [11]. These goals were to be accomplished by creating the paradigm for PNSs that can attract extra physicians into field [12]. The first two of these objectives were finished during October 2023 and September 2024, while the third objective was finished in 2021 when American Board of Physician Nutrition Practitioners was established. Because the ABPNS is the exclusive owner of the rights to period Physician Nutrition Consultant, solitary the situation diplomates are allowed to employ this designation. The word was documented through ABPNS [13-18].

IPNEC established and disseminated the accompanying concept for PNSs in order to foster development in both the amount of nutrition training programmes in addition quantity of physicians who seek nutrition training. This was done with the goal of improving public health [19]. A PNS is a pediatrician who has received training in nutrition, who has focused a significant portion of their career on nutrition, and who is qualified to assume a role of leadership in the coordination of interdisciplinary medical nutrition services also instruction in academic health centers, further medical centers, secluded practice, and other types of health care settings [20-25]. PNSs typically have training in medical specialized fields of internal medicine, pediatrics, internal medicine, or interventional radiology, and occasionally in additional medical subspecialties by way of well, including older teenager or pediatric gastroenterology, endocrinology, critical care, nephrology, cardiology, or other relevant fields [26]. They have finished the phase period of specified nutrition training in addition to unambiguous residency program. This training included skill of the specified fundamental of information as well as finalization of a time frame of mentoring programs clinical nutrition encounter [27]. This knowledge could have been procured in a nutrition scholarship or as part of training in another specialty area [28].

Residency program education programmes in preventive medicine are required to provide fellows an amount of training and experience that is of enough quality for them to be able to gain the skills necessary to become specialists in their area [29]. The training must consist of eight months of supervised medical care and formal teaching. This may be done all at once or as an equal length of minutes spread out over a longer length of time and incorporated among other responsibilities. Residential contexts must account for no less than 23% of total medical knowledge, while outpatient environments must account for no only about 24% of the total [30].

It is necessary to have operational access to contemporary infrastructure and activities, that ought to include inpatient, ambulatory, and laboratory capabilities. In addition to both medical and surgical critical care units, there must to be a full biochemical laboratory, an integrative nutrition support center, indirect calorimetry technology, a body-composition center, and food services. Hospital practice has to include the opportunity to monitor and handle a substantial amount of novel also follow-up inpatients and outpatients of various ages, especially offspring also elderly individuals; of both genders; in addition having the broad collection of common also rare nutrient illnesses. The medical background has to be overseen by doctors, and the treatment needs to remain providing by an interdisciplinary team just like a nursing service that employs certified dietitians in addition to any other competent health care experts. The curriculum needs to provide students the chance to work as clinical nurse consultants for other medical professionals also services, in both inpatient and outpatient settings.

The typical diagnostic issues stress states, hypometabolic and malnutrition nations, re feeding symptoms, drug-nutrient interactions, fluid and electrolyte management, interpretation of laboratory values, but also nutritional require some additional problems should be evaluated, managed, and prevented by compatriots, and they must have formal instruction, medical training, or possibilities to obtain expertise in these areas. You may find the handbook on the website of the IPNEC, where it is also offered completely free of charge. There are regular updates made to it [31]. It provides recommendations of current textbooks and sections, as well as review articles, new reports, pivotal papers, research papers, multimedia materials, and websites in each of the topic areas that are included in the curriculum template. Because there is

already a multitude of curricular resources, it was decided that it was not necessary nor desirable to create any further ones. Instead, the purpose of the guide is to direct learners to the most useful materials that are currently accessible in each topic area. In addition, despite the fact that the guide is meant to be a somewhat comprehensive resource, it is in no way thorough, and a great deal of really useful resources could not be included on the list [32].

RESULTS:

October is the month designated each year for the administration of ABPNS Certification Examination for Physician Nutrition Specialists. According to the IPNEC Curriculum Guide, it may have as many as 260 multiple-choice, different types of questions that cover the whole scope of preventive medicine. Exam topics are balanced as described in the following: overall elements of nutrition receive 16% of the total weight, vitamins, receive 21% of the overall mass, nutrition status assessment receives 12% of the total weight, disease-specific nutrition receives 43% of the total weight, and enteral and parenteral nutrition support receives 16% of the overall weight. The range of the pass rate was between 70 and 75 percent. The cost of the examination is \$700.00. It is provided in 25–30 places in North America and may be provided in other areas around the world upon request. The credential has a validity period of 11 years, because after that time it must undergo certification in order to be active.

The American Board of Pediatric Nutrition and Metabolism has 224 diplomates as of October 2020; nearly half of these diplomates have stated that they have undergone some residency training in nutrition. These fellowship stood divided into two categories: those that focused only on nutrition and those that merged nutrition studies with those of other subspecialties. The majority of diplomats work in various healthcare settings. It was decided to provide six national nutrition organizations that have a considerable number of physician participants permanent seats on the ABPNS Board of Directors. This was done with the intention of securing widespread and ongoing engagement in the credentialing process as well as ownership of it. Table 1 presents the current members that make up the Board of Directors for the company.

Table 1:

	Control Set (n=21)	Research set (n=350)	P-value
Age, mean age	57.8 + 15.5	65.7±14.4	0.09
Male gender	12 (17.3)	19 (69.6)	0.29
Chronic Heart disease	2 (8.3)	1 (4.2)	0.71
Previous infraction	2 (8.3)	3 (19.4)	0.71
DM	3 (19.4)	1 (4.2)	0.65
Hypertension	8 (64.5)	3 (19.4)	0.54
Pulmonary disease	1 (4.2)	12 (17.3)	0.71
Cancer	1 (4.2)	8 (64.5)	0.02

Table 2:

	Control Set (n=21)	Research set (n=350)	P-value
Chest Pain	10 (29.6)	3 (14.4)	0.47
Dispone at exercise	13 (28.5)	2 (8.8)	0.065
Dispone at rest	3 (4.4)	1 (4.4)	0.003
Previous results	2 (8.8)	14 (56.8)	0.002
Syncope	3 (14.4)	2 (8.8)	0.002

DISCUSSION:

This concept acknowledges the fact that doctors who specify in nutrition emerge from the change of backgrounds; they do not altogether take the same path into profession; they do not all have precise similar primary interests; nonetheless, there is a body of information and competence that is universal to all PNSs [33]. It is envisaged that if training sessions are made accessible in a variety of venues and if they are combined with both the doctors' other interest in working, then a greater number of physicians may choose nutrition as a field of specialty interest [34-37].

A physician has to have accomplished their category residency training before they may be considered for entry into fellowship study in the specialty of preventive medicine [35]. While this happens often in pediatrics, family medicine, family medicine, or general surgery, doctors who have had training in other specialties may also be recognized [36]. Clinicians who are automatically engaged in congregation programmes in subspecialties such as adult or pediatric gastroenterology, endocrinology, emergency medicine, nephrology, or internal medicine could undertake nutrient instruction as an integrated component of their primary residency program fellowship program if their elective time permits for it [38].

IPNEC and ABPNS have shown interest in communicating with the medical nutrition profession in the hopes of reaching a wide agreement and broadening the scope of the better healthcare field. They have distributed knowledge about their purpose and actions via papers, their website, links to the websites of their relevant bodies, brochures, talks, and networking at national and international conventions [39]. The IPNEC Curriculum Guide, the guidebook for ABPNS Candidates, an admission to take test, and other options for getting in touch with ABPNS are all available on the website. The material about obtainable nutrition communions, with links to websites of residency programmes if they were present, was gathered via a survey that was carried out in partnership with Committee on Professional Nutrition Education of the American Society for Scientific Nutrition. This also includes information on every ABPNS diplomate, which is provided for advantage of PNSs, the general public, in addition anybody else who may be intrigued [40].

CONCLUSION:

ABPNS especially encourages colleagues from all around the globe to provide advice and comments at this time. The committee should aim to expand its participation to include clinical nutrition organizations from other nations, preferably more than one.

REFERENCES:

1. Feinman RD, Volek JS. Carbohydrate restriction as the default treatment for type 2 diabetes and metabolic syndrome. *Scand Cardiovasc J.* 208;42(4):256-63.
2. Hallberg SJ, McKenzie AL, Williams PT, et al. Effectiveness and safety of a novel care model for the management of type 2 diabetes at 1 year: an open-label, non-randomized, controlled study. *Diabetes Ther.* 2018;9(2):583-612.
3. Athinarayanan SJ, Adams RN, Hallberg SJ, et al. Long-term effects of a novel continuous remote care intervention including nutritional ketosis for the management of type 2 diabetes: a 2-year non-randomized clinical trial. *Front Endocrinol (Lausanne).* 2019;10:348.
4. Volek JS, Phinney SD, Krauss RM, et al. Alternative dietary patterns for Americans: low-carbohydrate diets. *Nutrients.* 2021;13(10):3299.
5. Feinman RD, Pogozelski WK, Astrup A, et al. Dietary carbohydrate restriction as the first approach in diabetes management: critical review and evidence base. *Nutrition.* 2015;31(1):1-13.
6. Muscogiuri G, El Ghoch M, Colao A, et al. European guidelines for obesity management in adults with a very low-calorie ketogenic diet: a systematic.
7. American College of Obstetricians and Gynecologists. FAQs. Nutrition during pregnancy. Updated March 2021. <https://www.acog.org/womens-health/faqs/nutrition-during-pregnancy>.

8. Desrosiers TA, Siega-Riz AM, Mosley BS, Meyer RE; National Birth Defects Prevention Study. Low carbohydrate diets may increase risk of neural tube defects. *Birth Defects Res.* 2018;110(11):901-909.
9. Mustafa ST, Hofer OJ, Harding JE, et al. Dietary recommendations for women with gestational diabetes mellitus: a systematic review of clinical practice guidelines. *Nutr Rev.* 2021;79(9):988-1021.
10. Qian M, Wu N, Li L, et al. Effect of elevated ketone body on maternal and infant outcome of pregnant women with abnormal glucose metabolism during pregnancy. *Diabetes Metab Syndr Obes.* 2020;13:4581-4588.
11. Marshall NE, Abrams B, Barbour LA, et al. The importance of nutrition in pregnancy and lactation: lifelong consequences. *Am J Obstet Gynecol.* 2021;S0002-9378(21)02728-9.
12. Lafountain RA, Miller VJ, Barnhart EC, et al. Extended ketogenic diet and physical training intervention in military personnel. *Mil Med.* 2019;184(9-10):e538-e547.
13. Deutscher Volkshochschul-Verband. Programme areas of german education centres. <https://www.volkshochschule.de/verbandswelt/dvv-english/programme-areas-of-german-education-centres.php>. Accessed 6 Feb 2022.
14. Marstedt G, Möbus S. Inanspruchnahme alternativer Methoden in der Medizin. 1st ed. Berlin: Robert-Koch-Inst; 2002.
15. Hegyi G, Petri RP, Roberti di Sarsina P, Niemtzwow RC. Overview of integrative medicine practices and policies in NATO participant countries. *Med Acupunct.* 2015;27(5):318–27.
16. Rausch SM, Winegardner F, Kruk KM, Phatak V, Wahner-Roedler DL, Bauer B, et al. Complementary and alternative medicine: use and disclosure in radiation oncology community practice. *Support Care Cancer.* 2010;19(4):521–9.
17. Berkman ND, Sheridan SL, Donahue KE, Halpern DJ, Crotty K. Low health literacy and health outcomes: an updated systematic review. *Ann Intern Med.* 2019;155(2):97.
18. Huebner J, Micke O, Muecke R, Buentzel J, Prott FJ, Kleeberg U, et al. User rate of complementary and alternative medicine (CAM) of patients visiting a counseling facility for CAM of a German comprehensive cancer center. *Anticancer Res.* 2019;34(2):943–8.
19. Statista. Zahl der Einwohner in Ost- und Westdeutschland bis 2020 [Internet]. Statista. 2021. <https://de.statista.com/statistik/daten/studie/1058231/umfrage/zahl-der-einwohner-in-ost-und-westdeutschland/>. Accessed 6 Feb 2022.
20. Frewer A. Medizingeschichte und Medizinethik Kontroversen und Begründungsansätze 1900–1950. Frankfurt/Main New York: Campus; 201.
21. Hoffmeister L, Huebner J, Keinki C, Muenstedt K. Education of non-medical practitioners in Germany—an analysis of course subjects of specialized schools. *Wien Med Wochenschr.* 2021. <https://doi.org/10.1007/s10354-021-00909-8>
22. Deutsche Gesellschaft für Ernährung. Zulassungskriterien. 2021. <https://www.dge.de/service/zertifizierte-ernaehrungsberatung/zulassungskriterien/>. Accessed 6 Feb 2022.
23. Techniker Krankenkasse. TK-Gesundheitskursuche. <https://www.tk.de/service/app/2009028/gesundheitskurs/suche.app>. Accessed 6 Feb 2022.
24. Younge JO, Gotink RA, Baena CP, Roos-Hesselink JW, Hunink MGM. Mind-body practices for patients with cardiac disease: a systematic review and meta-analysis. *Eur J Prev Cardiol.* 2015;22(11):1385–98. <https://www.ncbi.nlm.nih.gov/pubmed/25227551>.
25. Park S-H, Han KS. Blood pressure response to meditation and yoga: a systematic review and meta-analysis. *J Altern Complement Med.* 2017;23(9):685–95.

26. Zou L, Zhang Y, Yang L, Loprinzi PD, Yeung AS, Kong J, et al. Are mindful exercises safe and beneficial for treating chronic lower back pain? A systematic review and meta-analysis of randomized controlled trials. *J Clin Med*. 2019;8(5):628.
27. O'Neill M, Samaroo D, Lopez C, Tomlinson G, Mina SD, Sabiston C, et al. The effect of yoga interventions on cancer-related fatigue and quality of life for women with breast cancer: a systematic review and meta-analysis of randomized controlled trials. *Integr Cancer Ther*. 2020;19:153473542095988.
28. Dikmen HA, Terzioglu F. Effects of reflexology and progressive muscle relaxation on pain, fatigue, and quality of life during chemotherapy in gynecologic cancer patients. *Pain Manag Nurs*. 2019;20(1):47–53.
29. Sajadi M, Davodabady F, Naseri-Salahshour V, Harorani M, Ebrahimi-monfared M. The effect of foot reflexology on constipation and quality of life in patients with multiple sclerosis. A randomized controlled trial. *Complement Ther Med*. 2020;48:102270.
30. Qin S, Xiao Y, Chi Z, Zhu D, Cheng P, Yu T, et al. Effectiveness and safety of massage in the treatment of anxiety and depression in patients with cancer. *Medicine*. 2020;99(39):e22262.
31. Kalichman L. Massage therapy for fibromyalgia symptoms. *Rheumatol Int*. 2010;30(9):1151–7.
32. Berman BM, Langevin HM, Witt CM, Dubner R. Acupuncture for chronic low back pain. *N Engl J Med*. 2010;363(5):454–61.
33. Vickers AJ, Cronin AM, Maschino AC, Lewith G, MacPherson H, Foster NE, et al. Acupuncture for chronic pain. *Arch Intern Med*. 2012;172(19):1444. <https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/1357513>.
34. Linde K, Allais G, Brinkhaus B, Fei Y, Mehring M, Vertosick EA, et al. Acupuncture for the prevention of episodic migraine. *Cochrane Database Syst Rev*. 2016; <https://doi.org/10.1002/14651858.CD001218.pub3>.
35. Brinkhaus B, Roll S, Jena S, Icke K, Adam D, Binting S, et al. Acupuncture in patients with allergic asthma: a randomized pragmatic trial. *J Altern Complement Med*. 2017;23(4):268–77.
36. Parás-Bravo P, Salvadores-Fuentes P, Alonso-Blanco C, Paz-Zulueta M, Santibañez-Margüello M, Palacios-Ceña D, et al. The impact of muscle relaxation techniques on the quality of life of cancer patients, as measured by the FACT-G questionnaire. *PLoS ONE*. 2017;12(10):e184147.
37. Charalambous A, Giannakopoulou M, Bozas E, Paikousis L. A randomized controlled trial for the effectiveness of progressive muscle relaxation and guided imagery as anxiety reducing interventions in breast and prostate cancer patients undergoing chemotherapy. *Evid Based Complement Altern Med*. 2015;2015:270876. <https://doi.org/10.1155/2015/270876>.
38. Brown AC. Kidney toxicity related to herbs and dietary supplements: Online table of case reports. Part 3 of 5 series. *Food Chem Toxicol*. 2017;107:502–19.
39. Yang B, Xie Y, Guo M, Rosner MH, Yang H, Ronco C. Nephrotoxicity and Chinese herbal medicine. *Clin J Am Soc Nephrol*. 2018;13(10):1605–11.
40. Navarro VJ, Khan I, Björnsson E, Seff LB, Serrano J, Hoofnagle JH. Liver injury from herbal and dietary supplements. *Hepatology*. 2016;65(1):363–73.
41. Posadzki P, Watson LK, Ernst E. Adverse effects of herbal medicines: an overview of systematic reviews. *Clin Med*. 2013;13(1):7–12. <http://www.clinmed.rcpjjournal.org/content/13/1/7.full.pdf>.
42. Stub T, Musial F, Kristoffersen AA, Alræk T, Liu J. Adverse effects of homeopathy, what do we know? A systematic review and meta-analysis of randomized controlled trials. *Complement Ther Med*. 2016;26:146–63. <https://www.sciencedirect.com/science/article/abs/pii/S0965229916300383>.

43. Fock KM, Khoo J. Diet and exercise in management of obesity and overweight. J Gastroenterol Hepatol. 2013;28(4):59–63.