

EVIDENCED-BASED NUTRITION PRACTICE

Nutrition professionals in North Carolina, who are not otherwise exempt, are required to be licensed under Chapter 90, Article 25 of the North Carolina General Statutes (1991). As per the statute, licensed dietitians/nutritionists (LDNs) and licensed nutritionists (LNs) are able to provide *medical nutrition therapy*,¹ to individuals and groups with a range of medical concerns and problems. Licensed dietitians/nutritionists and licensed nutritionists are specifically trained to assess nutritional status and make appropriate recommendations for changes in diet, based on a science-based curriculum. This science-based curriculum is a requirement under the statutorily defined academic requirements found in N.C.G.S. § 90-357.5(a)(1)a. or N.C.G.S. § 90-357.5(c)(1). Basing practice on scientific research is vital to protecting the health of all US citizens. This is generally termed “evidence-based practice.” Evidence-based practice forms the cornerstone of other professional practices, including medicine, dentistry, nursing, and pharmacy.

The knowledge base in nutrition does evolve and change as ongoing research reveals new information. Nutrition professionals change practice but only after the research has been thoroughly investigated, and a consensus is reached within the greater scientific community. Policy and practice should never be based on a single study or anecdotal reports. Anecdotal reports are reports of benefit without studies to back them up. These may be perpetuated in the general media or come as recommendations from friends and family. Many unlicensed persons who market themselves as having expertise in nutrition obtain their information from the general media, product marketing, or from a single book that makes claims not necessarily backed up by science. Some may be able to produce various academic degrees or certifications in nutrition, but unless the program meets the requirements outlined in N.C.G.S. § 90-357.5(a)(1)a. or N.C.G.S. § 90-357.5(c)(1) these individuals do not meet the academic requirements for licensure in North Carolina.

Evidence-based practice can best be understood with a review of the “scientific method.” The scientific method is a process whereby scientists develop theories or hypotheses about their observations. These are sometimes thought of as “educated guesses.” The hypothesis is tested by developing a research study, carefully designed to eliminate researcher “bias.” The best studies are those that used a double-blind approach and involve a placebo or no intervention. This means that there is a “control” group, who is either on a placebo or is left without an intervention. The other group, the “experimental” group, is given the experimental treatment or intervention. Both the participants and the researchers are “blinded” as to which group each of the participants is in. Sometimes, the groups “cross over” after a specific period of time, whereby the control

¹ *Medical Nutrition Therapy* is defined in North Carolina General Statute § 90-352(3a) as “the provision of nutrition care services for the purpose of managing or treating a medical condition.”

Nutrition Care Services is defined in North Carolina General Statute § 90-352(4) as:

- a. Assessing the nutritional needs of individuals and groups, and determining resources and constraints in the practice setting;
- b. Establishing priorities, goals, and objectives that meet nutritional needs and are consistent with available resources and constraints;
- c. Providing nutrition counseling in health and disease;
- d. Developing, implementing, and managing nutrition care systems; and
- e. Evaluating, making changes in, and maintaining appropriate standards of quality in food and nutrition services.

"Nutrition care services" does not include the retail sale of food products or vitamins.

group is given the intervention, and the intervention group is given either the placebo or no intervention. The **gold standard** of all research studies is the **placebo controlled, double blinded study**.

Other strong research methods include meta-analysis and large epidemiological studies. In a meta-analysis, data from multiple studies are analyzed as one study, after controlling for the many variables that could impact the outcomes. The epidemiological studies look at larger population groups and study the impact of behavior on health outcomes within specific populations. Regardless of the type of study, policy and practice do not change based on a single study. Good science dictates that studies be repeated by other researchers to corroborate or refute findings. It is not uncommon for multiple researchers to present mixed results. Only then, do the experts in the field come together to determine policy or make recommendations that impact the practice of nutrition and dietetics.

Prior to testing interventions on humans, both cell studies and animal studies may be conducted. The results of these studies cannot be translated to humans without thorough human studies, which often occur in phases to guarantee both efficacy and safety. Sometimes an intervention will make it through phase I and II trials only to be found to have problems during the phase III trial, thereby prohibiting the intervention from going forward.

It is not just unwise to give nutrition advice without thorough research to support it, it is unethical. Persons who present to LDNs or LNs for medical nutrition therapy may have significant illnesses such as cancer, HIV/AIDS, diabetes, cardiovascular disease, renal disease, gastrointestinal problems, as well as psychological issues such as eating disorders. These persons are considered a vulnerable population, and as such, their condition must be managed with care. Medical nutrition therapy must be evidence-based and founded in scientific research.

This document has been reviewed and approved by the North Carolina Board of Dietetics/Nutrition for use as a guideline only. It is not all inclusive or exclusive. This guideline is provided as information only and is not intended to address any specific case scenario. Violations and Complaints reported to the Board will be reviewed on a case-by-case basis and are dependent on the facts of the situation. In the event of a conflict between this guideline and the North Carolina Dietetics/Nutrition Practice Act and associated Rules, the Statute and Rules will govern.

NORTH CAROLINA BOARD OF DIETETICS/NUTRITION
1135 Kildaire Farm Rd., Ste. 200, Cary, North Carolina, 27511
Email: info@ncbdn.org • Phone: (919) 388-1931 • Fax: (919) 882-1776

