



The Research DPG strives to provide members with the information and networking needed to allow them to be the valued source for conducting, interpreting, and applying research related to food, nutrition and dietetics. This toolkit is one initiative aimed at fulfilling that goal.

Please let us know if you know of additional resources to include in this toolkit. Email your ideas and suggestions to chair@researchdpg.org.

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HONING RESEARCH SKILLS

Your college experience has already taught you basic research skills. If it has been awhile or you desire to expand your current research capabilities, there are lots of good resources available—and, many of those listed below are free for Academy of Nutrition and Dietetic members!

Academy Nutrition Research Network

- [Network](#) of registered dietitian nutritionists who are members of the Academy of Nutrition and Dietetics and participate in practice-based research
- Provides research education resources and opportunities to participate in research

Academy Research 101 6-Part Podcast Series

- Produced by the Council of Research in the Spring of 2018
- Podcast topics cover six parts of the research process:
 - Forming a Plan
 - Finding Funding
 - Collecting Data
 - Analyzing Data/Results
 - Sharing Results
 - Academy Research Opportunities
- Access the recorded podcasts
 - Approved for 1.5 CPEUs (must watch all six podcasts)
 - Click here to [access the podcasts](#) and obtain CPE credit

“Different Types of Scientific Literature”

- [Provides overview](#) of primary, secondary, and tertiary research
- Also, discusses differences between peer-reviewed and gray literature

Health Services Research Information Center (HSRIC)

- Research portal of [health services research resources](#) providing numerous internet links to data, funding announcements, reports, podcasts, discussion groups, and more
- Sponsored by the U.S. National Library of Medicine

Introducing Academy Secondary Datasets

- [Academy datasets](#) contain de-identified data
- Learn how to use them as an entry point into scientific research
- Log into the Academy website to [access to the presentation, webinar survey and 1 CPE credit](#)

Research DPG Mentorship Program

- [Matches mentors and mentees](#) on research-related skills and interests
- Mentor-mentee pairs correspond via phone or video chat for a 6-month period

Research Gate

- [Global online community](#) of researchers
- Great networking site, as well as opportunity to ask for full-text articles

Types of Study Designs

- Brief guide to the [different study types](#) and a comparison of the advantages and disadvantages
- Also links to information on interpreting levels of evidence

FINDING FUNDING

One of the biggest challenges to conducting research can be finding grant funds. Some possible sources are listed below. One piece of advice—tenacity and extroversion can be assets when it comes to obtaining research monies. Don't get discouraged and work your network!

Academy Foundation Grants

- [The Foundation](#) offers several named research grant funding opportunities
- Each grant has specific criteria and separate review committees make the funding decisions

Foundation Center Directory

- [Comprehensive database](#) of funding opportunities (140,000 foundations and donors)
- Subscription required, different fee options

Health Associations

- Many health associations offer grants for nutrition related research
- Find associations working in your area of interest, e.g. American Heart Association, American Diabetes Association, Obesity Foundation

Industry Trade Associations

- Many industry trade associations offer grants for nutrition related research
- Look for groups with overlapping interests, e.g., National Dairy Council, McCormick Spice

National Institutes of Health (NIH) Information for Researchers

- [NIH's central resource](#) for grants and funding information
- Useful information is applicable to request for proposals from many other funders

Research DPG Awards

- Check out the [member-only funding opportunities](#) provided by the Research DPG
- Also, investigate funding opportunities offered by other DPGs

US Government Funding Opportunities

- [Grants.gov](#) is the single access point for over 900 grant programs offered by the 26 Federal grant-making agencies
- Search this free service to learn about funding opportunities and how to apply for them

CONDUCTING CLINICAL TRIALS

ClinicalTrials.gov: Submitting Your Results

- Details on the process of submitting results information to [ClinicalTrials.gov](#)
- Also includes information on adverse events reporting, outcome measures and statistical analysis, and other helpful resources

Dietary Assessment Research Resources

- Range of [nutrition research resources](#), including data collection resources, dietary assessment methodologies, dietary analysis tools, food composition databases
- Series of 12 videos about sources and magnitudes of dietary measurement errors

Institutional Review Boards

- The basics of [institutional review boards](#) (IRBs)
- Helpful table on how to determine whether your project meets this federal definition of research and involves some level of interaction with people

Office of Human Research Protection

- Information on the protection of the rights, welfare, and wellbeing of [human subjects involved in research](#) conducted or supported by the U.S. Department of Health and Human Services
- Policy and regulatory guidance on conducting ethical research

Protected Health Information

- Guidance on methods for de-identification of [protected health information](#) in accordance with the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule
- Includes details about Expert Determination and Safe Harbor Methodology

DEVELOPING RESEARCH PROTOCOLS

A research protocol is the framework of how you conduct your study. It outlines the steps involved in conducting your research. After you write up your protocol—which may be all text or include visuals such as flowcharts—consider sharing it with a colleague. That feedback can help you produce a better protocol.

Checklist for the Assessment of the Methodological Quality

- The feasibility of creating a [checklist for the assessment of the methodological quality](#) both of randomised and non-randomised studies of health care interventions is a helpful article

Cochrane Methods

- Methodological Expectations of Cochrane Intervention Reviews ([MECIR](#)) are standards used for all Cochrane protocols, reviews, and updates
- Standards cover both conducting and reporting the reviews of interventions

Food-Based Clinical Trials

- [Best practices](#) for food-based clinical trials
- Guidance for planning, conducting and reporting on human studies to support health claims

World Health Organization

- Provides a [recommended format](#) for research protocols
- Easy-to-follow, non-threatening outline

ACCESSING DATA SETS

You don't have to have a pool of patients/clients to conduct a research study. There are sets of data on many nutrition-related factors and disparate populations available for researchers to analyze. In addition to the Academy, government agencies are a good source for these open access datasets.

Academy Secondary Datasets

- [Academy datasets](#) contain de-identified data, including:
 - Interprofessional Attitudes, Knowledge, and Practice of Nutrition and Exercise Professionals
 - Integrative Medicine
 - Academy of Nutrition and Dietetics 2013 Coding Survey
 - Academy of Nutrition and Dietetics 2014 Inpatient Dietitian Staffing Study

Behavioral Risk Factor Surveillance System (BRFSS)

- [BRFSS](#) is the nation's premier system of health-related telephone surveys
- Collects state data on US residents, including information on health-related risk behaviors, chronic health conditions, and use of preventive services

Health Resources and Services Administration (HRSA) Data Warehouse

- Open access [data portal](#) allowing users of a range of health datasets
- Allows users to select related datasets to create custom data views

Hunger-Free Communities Facilitation Guide

- Helps identify food and nutrition interventions that best meet the needs of specific communities
- [Appendixes](#) provide lists of publicly available data sets

National Health and Nutrition Examination Survey (NHANES)

- [NHANES](#) is a program of studies designed to assess the health and nutritional status of adults and children in the United States
- The survey is unique in that it combines interviews and physical examinations

PERFORMING LITERATURE REVIEWS

A literature review is a core piece of research studies. In addition, review articles are a great way to identify themes that precipitate from a number of published articles written by a myriad of authors. The following groups provide structured procedures for conducting reviews. The informational materials are well done and walk you through the process of compiling a narrative and/or systematic review.

Academy Evidence Analysis Library (EAL)

- [EAL](#) provides an objective and transparent methodology for evaluating and grading research
- Can be applied to narrative or systematic reviews

Cochrane Methods

- Methodological Expectations of Cochrane Intervention Reviews ([MECIR](#)) has a set of standards that all Cochrane protocols, reviews, and updates
- Standards cover both conducting and reporting the reviews of interventions

USDA's Nutrition Evidence Library Methodology

- [USDA's](#) methodology for conducting the systematic review for the 2015 Dietary Guidelines
- Based on guidelines from the Institute of Medicine, Academy of Nutrition and Dietetics, Cochrane Collaboration, and the Agency for Healthcare Research and Quality

ANALYZING FINDINGS

Once you've gathered your data—be it in a lab, patient population, or from the literature—you've got to put on your thinking cap and ascertain what this information is telling you. The tools below can help you wrap your brain around this task.

Academy of Nutrition and Dietetics Health Informatics Infrastructure (ANDHII)

- [ANDHII](#) is an online tool, available free to Academy members
- Helps researchers collect nutrition care impact data for use in public policy and quality improvement research
- Guides dietetics practitioners through each step of the Nutrition Care Process

CONSORT Guidelines for the Analysis of Randomized Controlled Trials

- [CONSORT](#) (CONsolidated Standards of Reporting Trials) 2010 guideline helps improve the reporting of parallel-group randomized controlled trial (RCT)
- Enables readers to understand a trial's design, conduct, analysis and interpretation, and to assess the validity of its results

UCSF Clinical and Translational Science Institute (CTSI)

- Free online [statistical analysis tools](#)
- Other research resources also available, e.g., conducting research, training, funding

USDA Economic Research Service (ERS)

- [ERS](#) informs and enhances public and private decision making on economic and policy issues related to agriculture, food, the environment, and rural development

INTERPRETING RESEARCH

Another goal of analyzing your data is figuring out the relevance to the field of nutrition and dietetics. To successfully publish, you've got to be able to explain how your findings uniquely contribute the field. Before doing this, you may want to review the resources below. They offer guidance on ensuring you are correctly weighing the level of evidence for your findings.

Academy Evidence Analysis Library

- [Detailed guidance](#) on how to assess the strength of evidence for assorted studies
- Easy-to-follow instructions on evaluating the readiness of research findings for translation into clinical practice

Sense about Science's Ask for Evidence Toolkit for Evaluating Types of Research

- [Ask For Evidence](#) campaign aims to engage the public in healthy skepticism
- Provides detailed explanations of various levels of evidence, their strengths and their limitations

STROBE Assessment of Observational Evidence

- [STROBE](#) offers help with strengthening the reporting of observational studies in epidemiology
- Provides a checklist of items that should be reported to ensure the validity and careful analysis of observational evidence (e.g. cohort, case-control, and cross-sectional studies).

MANAGING CITATIONS

Good news! Keeping citations in order is no longer a difficult task. There are now online tools that help you collect, organize, and number your references. Some are free; others require a subscription.

EndNote Basic

- [Free, web-based application](#)
- Allows you to create an online account for searching, saving and using research sources

EndNote Desktop (X8)

- [Reference manager](#) with cite while you write option
- Different pricing options

Zotero

- [Free, easy-to-use tool](#) to help you collect, organize, cite, and share research
- Works with Google Docs

REPORTING RESEARCH

To publish in a peer-reviewed journal, rigorous standards are required for reporting research findings. Furthermore, depending upon the specific journal you intend to submit your manuscript to, reporting requirements may vary. For help with this task, take some time to review the following resources. Also, carefully review the information for authors for the journal before submitting your article.

Cochrane Methods

- Methodological Expectations of Cochrane Intervention Reviews ([MECIR](#)) are standards that all Cochrane protocols, reviews, and updates
- Standards cover both conducting and reporting the reviews of interventions

Equator Network: Enhancing the Quality and Transparency of Health Research

- Comprehensive [searchable database](#) of reporting guidelines
- Links to other resources relevant to research reporting

Harvard-IFIC Guidelines for Communicating Research Findings

- [Harvard-IFIC guidance](#) on communicating emerging science on nutrition, food, safety and health
- Geared at multiple audiences, including scientists, journal editors, journalists, and industry groups

SHARING YOUR FINDINGS

There are lots of way to share your findings. The list below provides tips on getting published in lay and peer-reviewed journals, as well as guidelines for preparing posters.

Be the Expert: Write for National Publications

- [Academy webinar](#) on why it's important for dietitians to write for national publications
- Guidance on successful pitches, finding contacts, and what to do after you land the writing gig

Elsevier Author Services

- Provides information on research and preparation, writing your research manuscript, submission process and post publication
- [Researcher Academy](#) provides free access to e-learning resources

Finding Times Cited, Impact Factor and Journal Categories for Promotion and Tenure

- [University of Virginia Medical School](#) provides how-to steps on learning the frequency that your articles were cited, along with the impact factor of the specific journal
- Tips on how to retrieve information on your papers published and in press for your CV

Guidelines for Journal Review

- [How to review a manuscript](#) provides insights on how reviewers evaluate manuscripts
- Learn tips on how to critically appraise your manuscript to ensure it meets reviewer expectations

How to Create an Effective Research Poster

- Short YouTube video on [creating an effective research poster](#)
- Short YouTube video with [tips on presenting a poster](#)

Research DPG Member Resources

- [The Digest](#)—submit an article for the DPG newsletter
- Twitter—complete online form and we'll tweet about your accomplishment
- Blog—blog about your findings on the Meet the Research RDN blog

Understanding Impact Factors of Journals

- This [University of Illinois at Chicago](#) provides an overview of impact factors, which are measures of the frequency with which the average article in a journal was cited in a year
- Tools used to calculate impact factors are discussed

LEVERAGING ADDITIONAL EDUCATIONAL OPPORTUNITIES

Institute for Statistics Education

- Leading provider of online education in [statistics](#), analytics and data science
- 4 certificate programs and 100+ courses at novice, intermediate and advanced levels
- Costs vary, [check website](#) for current fees

McMaster Online Certificate in Applied Clinical Research

- Five courses (15 units) qualify you for a [Certificate in Applied Clinical Research](#)
- Courses must be taken in the order below:
 - Principles of Clinical Research
 - Research Ethics
 - Clinical Trial Design
 - Clinical Trial Management
 - Clinical Research Capstone
- Tuition, fees and books are about \$950 per course, which is just under \$5,000 for the certificate

RESEARCH DIETETIC PRACTICE GROUP

The Research Dietetic Practice Group is leading the future of dietetics
by promoting the conduct and application of research
related to food, nutrition and dietetics

Membership affords you special privileges:

- Research DPG Awards
- The Digest (newsletter with free CPEUs for members)
- Practice Group Events (including webinars with free CPEUs for members)
- E-Blasts & Election Mailing Lists Discussions
- Member Directory
- Mentorship Program
- Member-only Research Resources

