

**Evidence - Based Dietetics and Applied Nutrition (EBDAN): a tool for dietitians best practice**

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**Introduction**

Dietitians should work on the basis of the best practice knowledge. The great amount of published data on dietetics and nutrition has created the need to summarize findings and conclusions based on the best available empirical evidence.

**Objectives**

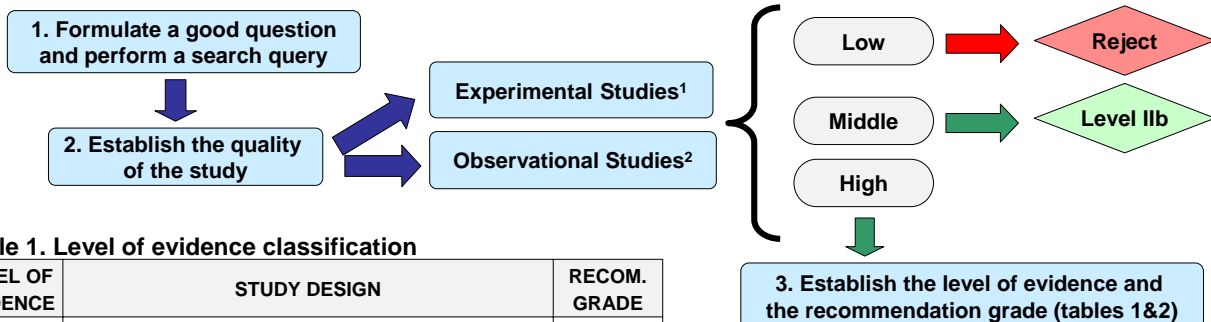
To develop a practical classification system of evidence levels for dietetics and applied nutrition science research that will enable dietitians to make evidence-based recommendations and prescriptions.

**Methods**

A review was conducted to identify articles evaluating different methods of classifying studies in light of evidence based criteria. Databases consulted included PubMed, Embase, Scopus, FSTA and Scielo. Selected articles included those published in English, Spanish, French, Italian and German.

**Results**

In despite of technical literature available addressing the classification of scientific evidence, only a few authors provide clear descriptions and even fewer studies are specifically applicable to the fields of dietetics and applied nutrition. Moreover, only a limited number of publications take into account that one has to evaluate: the type of study design, the quality of individual studies selected to be included in the review, the sample size and the length of the intervention. In addition, none of the papers selected in the present review considered that the evaluation methodology of the studies should be practical and adapted to the dietitians' theoretical knowledge. The currently developed tool, Evidence-Based Dietetics and Applied Nutrition (EBDAN), is surely the first system of evidence based classification that takes all these factors into account.



**Table 1. Level of evidence classification**

LEVEL OF EVIDENCE	STUDY DESIGN	RECOM. GRADE
Ia	- Systematic review of RCT* (with statistics) - Meta-analysis of RCT*	A1
Ib	- Systematic review of RCT (without statistics) - Review of RCT*	A2
IIa	- RCT* (sample of more than 100 subjects) - Systematic review of Prospective Cohort Studies - Meta-analysis of Prospective Cohort Studies	B1
IIb	- RCT* (sample less than 100 subjects) - Controlled Clinical Trials (systematic reviews, meta-analysis, review) - Review of Prospective Cohort Studies - Case-Control Studies (systematic reviews, meta-analysis, review) - Studies (all types) with controversial results	B2
III	- Clinical Trials - Cohort Studies (other than Prospective) - Studies (all types) catalogued as "middle quality"	C
IV	- Expert Opinions - Reviews (other types)	D

\* Randomized Controlled Trials  
¹,² Types of documents

**Table 2. Recommendation grade**

RECOM. GRADE	RECOMMENDATION TYPE
A1	Recommendations with extremely unlikely variations along the time
A2	Recommendations with unlikely variations along the time
B1	In case it is not possible to approve Ia or Ib study design, it can be considered this group as a A2 recommendation type. On the contrary, it will be considered as B2
B2	Recommendations with probable variations along the time
C	There are limited studies or they are not supported by enough studies. A recommendation cannot be established.
D	Studies have not been found.

**Conclusions**

EBDAN is a new practical tool, to be applied by dietitians, based on rational evidence in order to develop and review guidelines, validate nutrition and health claims, establish a wide variety of recommendations as well as to apply in preventive and therapeutic decision-making.

<sup>1</sup> Detsky et al. System: Detsky AS, Naylor CD, O'Rourke K, et al. Incorporating variations in the quality of individual randomized trials into metaanalysis. J Clin Epidemiol. 1992;45:255-65.

<sup>2</sup> CRD System: Khan KS, Riet G, Glanville J, Sowden AJ, Kleijnen J. Undertaking systematic reviews of research on effectiveness: CRD's Guidance for those Carrying Out or Commissioning Reviews. Center of Reviews and Dissemination (CRD) Report Number 4. 2.a ed. York: March, 2001.