

# **Standardised Nutrition Diagnosis Terminology: Implications for Dietetics Practice**

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## Statement of originality

*This thesis contains no material which has been accepted for the award of any degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying subject to the provisions of the Copyright Act 1968.*

*I hereby certify that the work embodied in this thesis is the result of original research, which was completed subsequent to admission to candidature for the degree of Doctor of Philosophy.*

*Zuriati Ibrahim*

# Dedication

*It is with much love and gratitude that I dedicate this thesis to my Mum, without whose unconditional love, wholehearted support and constant prayers, this task would have seemed overwhelming. You are my inspiration, strength and resilience when the world seems too hard to cope with. To my Dad, thank you for your encouragement and constant prayers in your own way. I am greatly indebted to you always and love you both very much.*

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# List of Abbreviations

ADA	American Dietetic Association
ADI	assessment, diagnosis, intervention
ADIME	assessment, diagnosis, intervention and monitoring and evaluation
AEB	as evidenced by
AMA	American Medical Association
ANOVA	analysis of variance
AU	Australia
BMI	Body Mass Index
CA	Canada
CAP	College of American Pathology
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CPT	Current Procedural Terminology
DAR	Diagnosis, assessment and recommendation
DCV	Diagnostic content validity
DOB	Date of birth
D-S NDC	dietetic specific nutrition diagnosis codes
EBP	evidence-based practice
EHR	electronic health record
ICD	International Classification of Diseases
ICD-10-AM	International Classification of Diseases Australian Modification
ICD-9-CM	International Classification of Diseases Ninth Edition Clinical Modification
ICF	International Classification of Functioning, Disability and Health
ICNP	International Classification of Nursing Practice
IDNT	International Dietetics and Nutrition Terminology
IFI	Indicator for Intervention
IHTSDO	International Health Terminology Standards Development Organisation
LOINC	Logical Observation Identifiers Names and Codes
LOS	length of stay
MNA	Mini Nutritional Assessment
MNT	Medical Nutrition Therapy
MRN	medical record number
MY	Malaysia
NAHCC	National Allied Health Classification Committee
NANDA	North American Nursing Diagnosis Association
NCP	Nutrition Care Process
NCPM	nutrition care process and model
NDT	Nutrition diagnostic term
NHDD	National Health Data Dictionary
NIC	Nursing Interventions Classification
NLM	National Library of Medicine
NOC	Nursing Outcomes Classification
NZ	New Zealand
PES	problem, etiology, signs and symptoms
PIE	problem, intervention and evaluation
QIC	quality improvement cube
RD	registered dietitian
RT	related to
SGA	Subjective Global Assessment
SND	standardised nutrition diagnosis
SNOMED	Systematised Nomenclature of Medicine
SNOMED CT	Systematised Nomenclature of Medicine Clinical Terms
SNOMED RT	Systematised Nomenclature of Medicine Reference Terminology
SPSS®	Statistical Package for the Social Sciences
TPN	Total Parenteral Nutrition
UK	United Kingdom
UMLS	Unified Medical Language System
US	United States
WHO	World Health Organisation

## Abstract

Standardised Nutrition Diagnosis (SND) as part of the Nutrition Care Process (NCP) has been implemented in the United States by the American Dietetic Association (ADA). This study is the first investigation of the potential for SND to be implemented beyond the United States. Research was conducted in two phases: (1) a case study of Australian dietetics practice and (2) a cross-sectional mail survey designed to investigate the extent of, and potential for, international SND implementation. Phase 1 involved application of descriptive case study methodology to an existing dataset of 274 patient records from three Australian hospitals. Of these records, 85 showed evidence of attendance by a dietitian. Results revealed incomplete documentation of the NCP in Australian dietetics practice, lack of understanding of the Nutrition Diagnosis step and use of non-standardised terms in documentation of nutrition care. In Phase 2, a convenience sample (n=420) of clinical dietetics practitioners in Australia, Canada, Malaysia, New Zealand, the United States and the United Kingdom was mailed a pre-tested and piloted self-administered questionnaire. Completed questionnaires were returned by a total of 85 practitioners from Australia (55.3%), Canada (25.9%) and Other Countries (18.8%). The questionnaire was also completed by a comparison sample (n=37) of third-year Australian dietetics students. When asked to identify, define, justify and rank NDTs using information provided in a case scenario, most practitioners, regardless of country of practice, did not demonstrate ability to accurately apply SND. Level of experience with medical nutrition therapy was demonstrated to have no impact on whether practitioners correctly identified, justified or ranked NDTs; however, less-experienced practitioners ( $\leq 10$  years) were more likely to provide valid definitions for NDTs than more-experienced ( $> 10$  years) practitioners. The Australian dietetics students were no more or less adept at SND application than the Australian dietetics practitioners. This research highlights widespread lack of awareness and understanding of the NCP and SND. Complexity of SND is flagged as a potential obstacle to successful international adoption, and a strong case is made for supporting implementation with rigorous educational programs and systematic ongoing professional training. Anticipated challenges to SND implementation are far outweighed by the opportunities it presents to ensure that care of patients is translatable within and across settings, and that dietetics professionals are able to effectively and convincingly communicate their distinct role in patient outcomes.