

# **Clinical and Experiences of Nutrition- focused Clinical Nurse Specialists: A Systematic Review**

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# Background

## Clinical Nurse Specialist in Nutrition

The Clinical Nurse Specialist in Nutrition possesses the expertise to offer specialized clinical support and leadership in the field of clinical nutrition.



Despite the identification of their role, uncertainties persist regarding the optimal integration of this professional within diverse Global Health Systems.



The **aim of this review** is to delineate the responsibilities of this professional by analyzing clinical experiences and data sourced from Nutrition Scientific Societies.

# Methods



**Systematic Review** reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Guidelines.

## **Research Question [PIO]**

**P** = nutrition nurse specialist;

**I** = empirical studies evaluating nutritional knowledge;

**O**=

- 1) identify specific countries within various global health systems where this role is recognized, along with the requisite qualifications and acronyms used for identification;
- 2) describe actual clinical experiences associated with this role;
- 3) update the existing literature to include new emerging roles related to this specialized nursing profession.

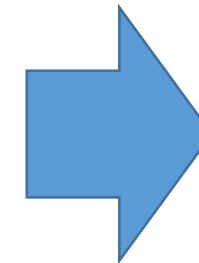
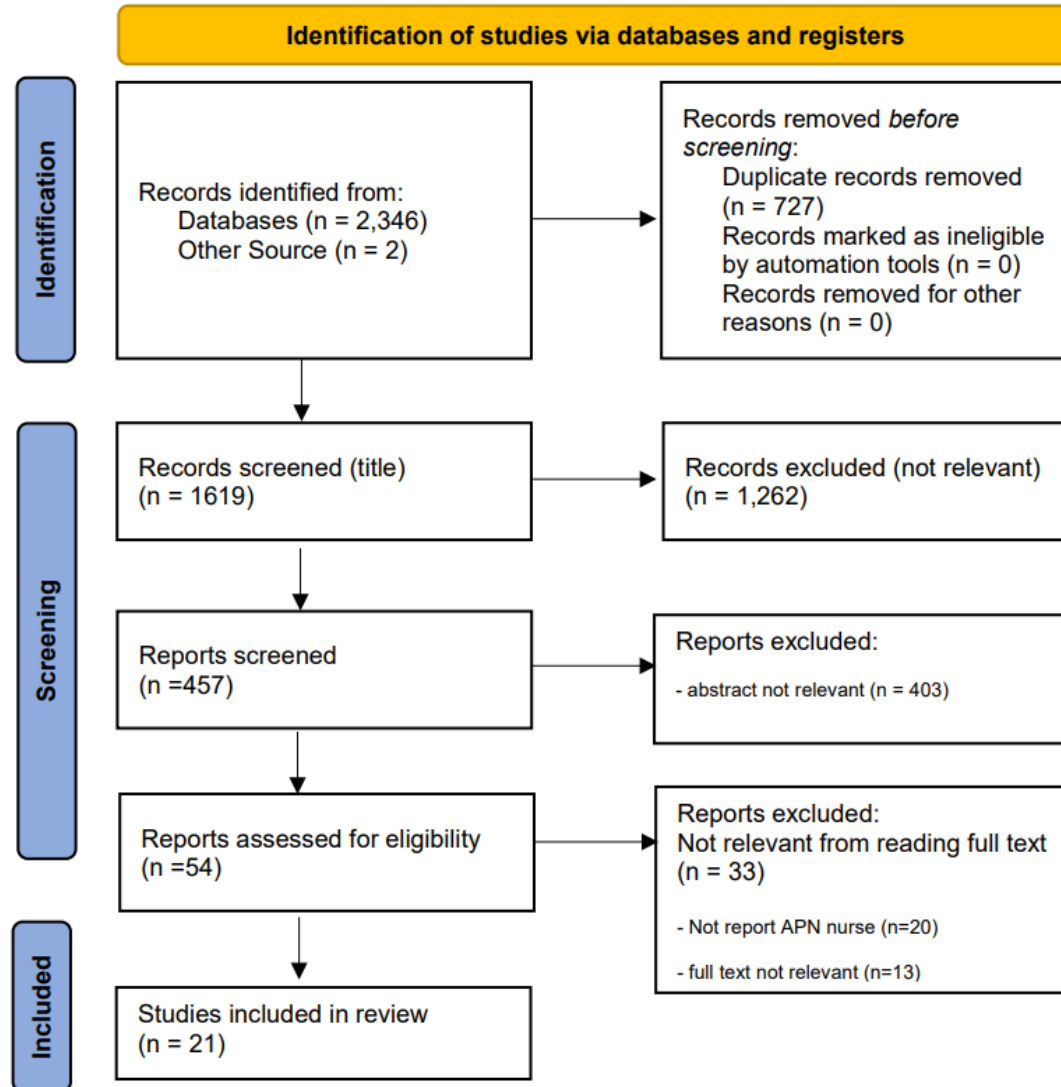
**Databases:** Cochrane Library, Pubmed, Embase, Cinahl, Scopus, Web of Science and Grey Literature.

**Inclusion Criteria:** primary studies published until July 2023 that examined *roles, skills and clinical-care experience* in the various settings of care and contexts of Advanced Practice Nurse in Nutrition

**Exclusion Criteria:** secondary studies, book chapters, editorials, and studies not focused on Advanced Practice Nurse in Nutrition

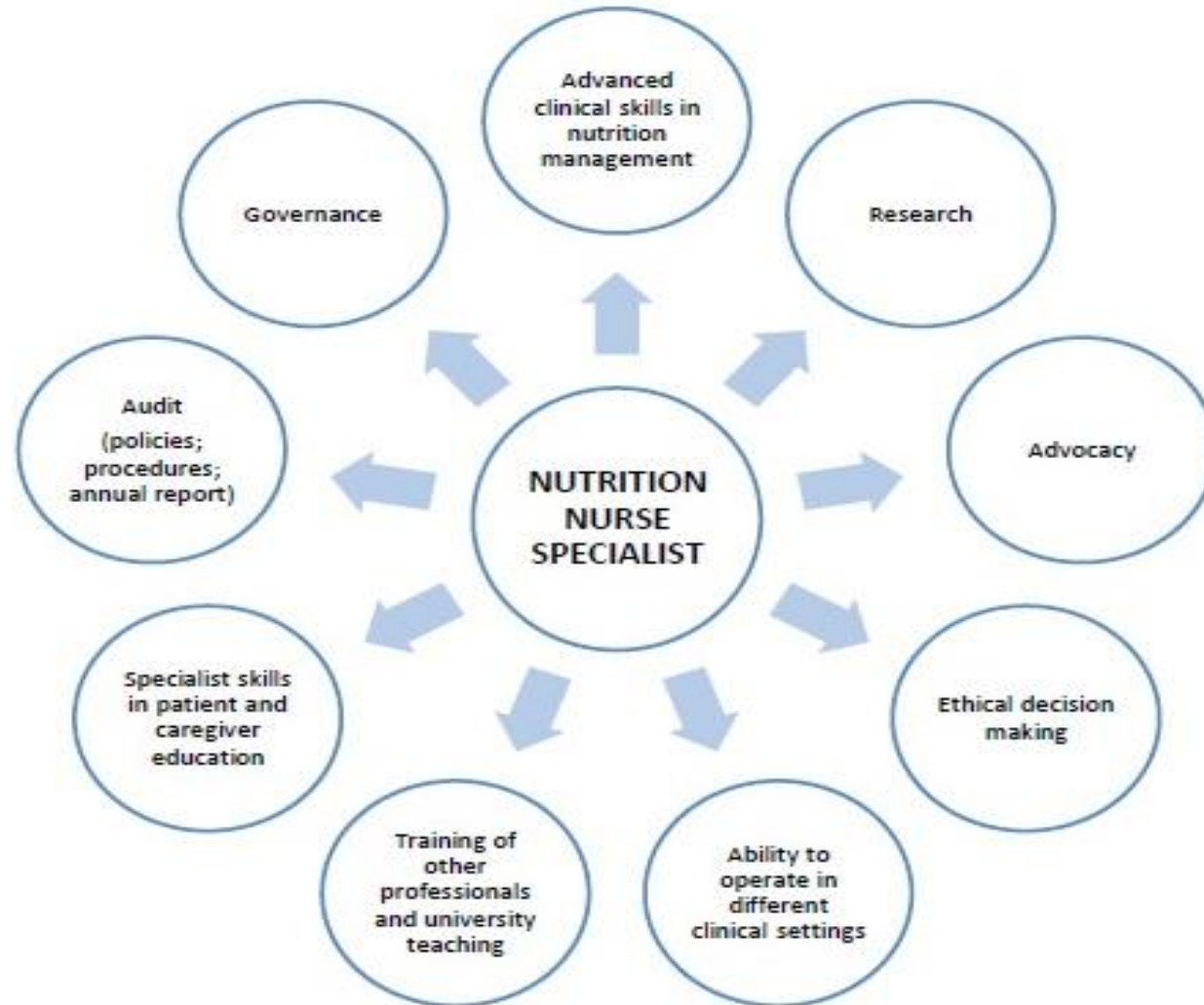
**Evaluation Quality/Bias:** JBI Critical Appraisal Tools

# Results

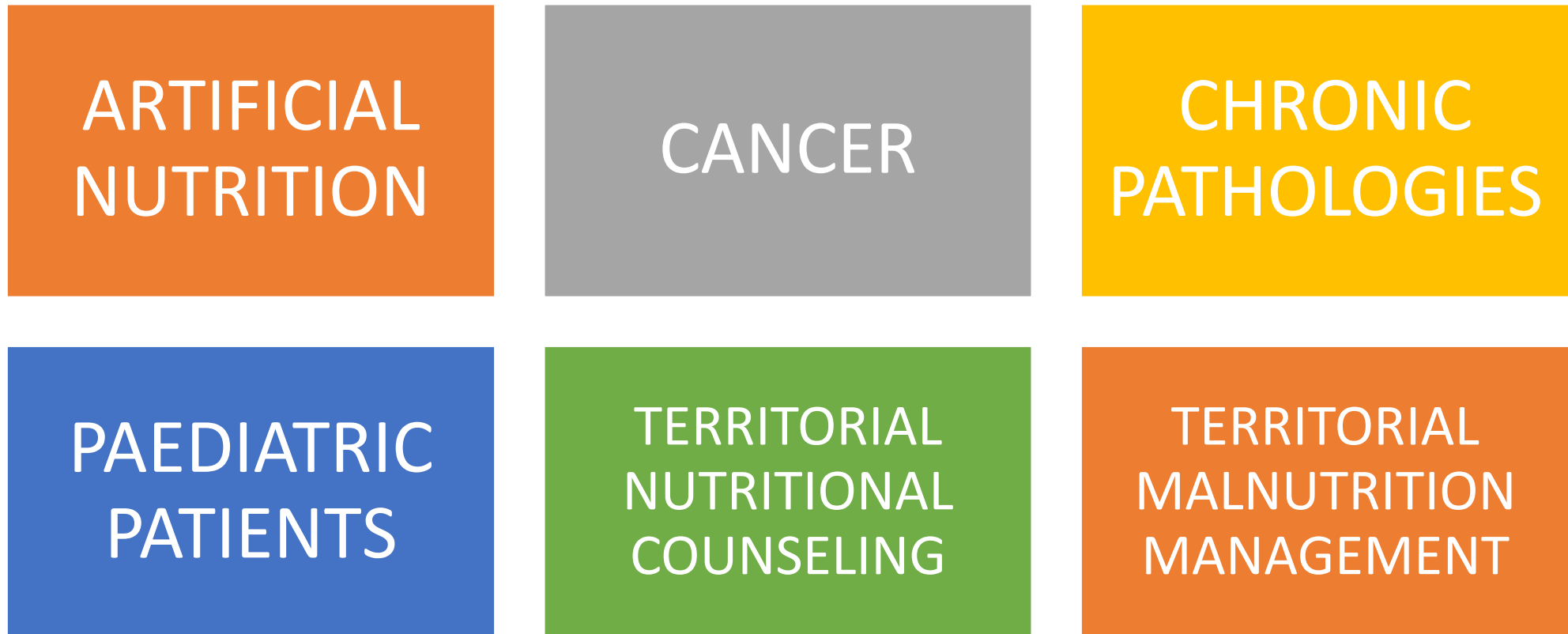


- **Competencies**
- **Clinical setting of application**
- **Specialization and certification**

## CNS in Nutrition - Competencies



## CNS in Nutrition - Clinical Setting of Application



## CNS in Nutrition – Role in Clinical Setting

The CNS in nutrition have shown improvements in:

- Clinical outcomes: better nutritional status, management of malnutrition, reduction of complications
- Increased attention to nutritional education of patients and caregivers
- Leadership, coordination, and technical skills by optimizing healthcare costs and clinical research activities



# Results

## CNS in Nutrition - Certification and title validity in the countries

Country	Specialization title	Certification	Title validity (y/n)	Nutrition nursing association
United States	Nutrition Nurse Specialist APN	(1) NBNSC certification (2) AANC Certification (3) APGNN certification	Y	ASPEN; AANC; APGNN
England	Nutrition Nurse Specialist Nutrition Support Nurse	MSc/PGDip/PGCert (1 year)	Y	BAPEN; NNNG
Netherlands	Nurse Practitioner	Master of Advanced Nursing Practice (MANP) degree (2 years)	Y	V&VN—MDL
Spain	Nutrition Nurse Specialist	Master Degree (1 Year)	Y <sup>a</sup>	Adenyd
Italy	Nutrition Nurse Specialist	Master Degree (1 Year)	N	Nutrition nursing group of SINuc
Portugal	Nutrition Nurse Specialist	APNEP Certificate; University specialization course certificate	N	Nutrition nursing group of APNEP
Brazil	Nutrition Nurse Specialist	Certificate of Expertise in Parenteral and Enteral Nutrition	Y	Nutrition nursing group of BRASPEN
Japan	Nurse Specialist in Pathophysiology and Nutrition	Certificate in Pathophysiology and Nutrition of JSMCN	Y	Nutrition nursing group of JSMCN
Japan	(1) Clinical Nurse Specialist in Diabetes Nursing (2) Certified Diabetes Educators in Nursing (CDEJ) (3) Certified Expert Nurse (CEN) in Diabetes Nursing	(1) MSc (2) JCBDE certificate (3) Japanese nursing association certificate	Y	Japanese Certification Board of Japan Diabetes Society, Japan Society of Metabolism and Clinical Nutrition, and Japan Academy of Diabetes Education and Nursing.
Tukey	Nutrition Nurse	Certificate of Nutrition Nurse of Turkey Ministry of Health	Y	KEPAN Nursing Study Group



# Results



## **CNS in Nutrition - Certification and title validity in the countries**

Such specialisation is often certified by National Scientific Societies, which are based on postgraduate qualifications, with gaps in regulation and academic education in some countries.

The adaptability of this role to various clinical settings, both **hospital and community**, has been identified due to the complementary nature of the specialisation to existing nursing qualifications.

# Discussion



- Nutrition represents an important area of Nursing Care and a primary patient need
- CNSs in nutrition not only conduct **comprehensive nutritional assessments**, but also design and **implement personalized nutrition plans** that consider specific health conditions, dietary needs and food preferences.
- They play an essential role in **educating both patients and caregivers** about the importance of nutrition, providing **educational strategies** to improve food intake and manage diet-related issues.
- They are a fundamental resource in the **multidisciplinary team**, promoting a collaborative and integrated approach between different healthcare professionals in nutrition management

# Key Points

- Specialized roles such as the CNS in nutrition are gaining increasing recognition in many countries.
- The introduction of **specialized training programs**, coordinated between **scientific societies and nursing universities**, could form the foundation for the development of this specialization in countries where the role is not yet established.
- The role of the CNS in nutrition improves **efficiency, safety and quality of care in various healthcare settings**, also contributing to **research and education** in nutrition