INTRODUCTION OF THE ADVANCED NURSING PRACTICE IN HEART FAILURE MANAGEMENT IN CYPRUS

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Current healthcare challenges

• aging population
• prevalence of chronic diseases / syndromes

• Need for enhancing healthcare services both in institutional settings and primary care

The efforts of integrating Advanced Practice Nurse (APN) role in Cyprus

• Ongoing organized efforts from
  • Cyprus Nurses and Midwives Association (CyNMA) &
  • Cyprus University of Technology (CUT)

• to introduce and integrate APN role, to confront the demand of:
  • Health promotion and chronic disease prevention /management
  • Primary health care reform
  • Health workforce shortages
  • Escalating health care costs

• APN multifold roles
  • clinical practice
  • education
  • research
  • professional development
  • leadership

• APN predominance
  • specialized education and training, within an autonomous and expanded scope of practice.

ANP in Cyprus: How far

- **Only one** APN education program
  - Master level of education
  - Established in 2012 by CUT
  - Cardiac Care, Intensive Care, Primary Care, Mental Health Care and Oncology Care

- **Despite the local efforts as well their international established and constantly evolving contribution, APN roles are still at an infantile stage of development in Cyprus.**

The current efforts of CyNMA and CUT for the integration and implementation of the new role, involve actions to:

- Gain the attention of healthcare planners, key decision makers and individuals, using **international and local evidence**
- Amend the legislation to confer, protect and recognize **the title “Advanced Practice Nurse”**
- **Nurses working in advanced practice roles.**
- Draft relevant regulations from the existing legislation to enable **APN’s broad scope of practice, that is still restricted by the current legislation**

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HF patients; a priority patient population

• **Heart Failure (HF)**
  - A global complex syndrome with multiple comorbidity
  - A prevalence of 1–2% of the adult population in developed countries, rising to ≥10% among people >70 years of age.


• Despite the improvements in therapeutic approaches, the outcome remains unsatisfactory.

• Patients are still at increased risk of hospitalization and death, and frequently have a poor quality of life.
  - **A demand for well organized services and delivery of structured outpatient monitoring.**

• Nurses with extended knowledge and skills as well as expanded scope of practice are the key players in the effective and qualitative HF management services.

APNs are essential players in community, long-term care and acute care settings for improving

• Outcomes
• Quality of care
• Innovation to deliver more sustainable models of care.


APNs are the ideal health professionals, using their comprehensive approach to

• Monitor HF symptoms,
• Educate patients
• Ensure quality care
• Reduce healthcare costs.


• Nurse – led HF management programs with pre-discharge interventions are found to reduce hospital readmissions.


• Nurse -led HF clinics further contribute to hospital readmission reduction, outcome and adherence improvement.

Despite the presence of APNs in all health care settings, the current regulatory mechanisms restrict their predefined characteristics:

- Right to diagnose.
- Authority to prescribe medication.
- Authority to prescribe treatment.
- Authority to refer clients to other professionals.
- Authority to admit patients to hospital.

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Cyprus
A nurse-led management program under the umbrella of research

- Designed by APNs
- Introduction of APNs’ role in the management HF to Cypriot key individuals, within the context of Cyprus current regulation.
Both Nurse Led HF Management Programs

- Were carried out simultaneously by Cardiac Care APNs in the same hospital, between April 2014 and June 2014.
- Followed strategies of low profile, clarified roles and collaborative approach
Management Of Non-invasive Ventilation (NIV) In Acute Cardiogenic Pulmonary Edema (ACPE) By Nurses Using A Standardized Assessment And Management Plan (SCAMP)


A methodological approach for the design and development of a SCAMP nurse led protocol for NIV management for ACPE patients

A quasi-experimental intervention to estimate its causal impact, in terms of safety and efficacy.

In Cyprus, both Invasive and Non Invasive Ventilation implementation are recognized as medical interventions
Methods according SCAMP methodology


• A protocol for nurse led NIV management was composed, based on all the relevant data and the experts’ opinion of a multidisciplinary committee

• Plausible outcomes that comprise of effective and safe NIV implementation by nurses were defined.

• Inclusion/exclusion criteria, assessment recommendations, definitions and management decision trees were built base on expert consensus and the current data.

• Nurses elaborate the procedure as guided, while the researchers record data and actions in the Data Collection Form.

• Protocol was implemented in two pilot studies of 10 patients each, in an ICU.

• Each implementation was followed by data processing and modification of the protocol, based on deviation, observations and literature.
Main Results


• The Protocol covers the whole spectrum of care including assessment of the patient, check of the ventilator, NIV implementation, monitoring and corrective adjustments, and NIV release
  • To reduce complications and adverse events
  • To maximize safety and effectiveness

• During the nurse – led protocol guided intervention of NIV implementation
  • NO Mortality, NIV failure and need for intubation, adverse events and patient safety issues or threats concerning NIV implementation were presented.

• Today, this nurse led protocol is integrated in the daily practice of many Hospitals in Cyprus and efforts are made from CyNMA and Cyprus Society of Cardiology for its further globalization.

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The Effect Of Different Types Of Counselling Interventions By Nurses In Patients With Heart Failure

Lambrinou E, Christoforou N, Kalogirou F, Protopapas A, Christofi P, Barberis V, Avraamides P, Middleton N.

STUDY:
A Randomized Control Trial of various interventions and longitudinal monitoring, part of a large research project, namely the MEETinCY trial.

OBJECTIVE:
To determine the effect of a structured educational intervention and / or follow up telephone counseling by nurses for patients with HF, regarding the HF deregulation.
Methods

• A randomized sample was extracted from the parent population between April 2014 and June 2014.

• Data was taken from the electronic medical records of patients of five government hospitals.

• Total cases (events) of HF deregulation including their clinical and demographic characteristics were recorded in 12 and 24 weeks post discharge.

• Additional information to support the existence or not of deregulation, if needed, was provided by patients and their relatives, through telephone calls.

• Events were classified as deregulation or deterioration of pre-existing HF, or deterioration from other causes.

• A hundred and ninety nine Cypriot patients with HF were recruited, who received educational intervention and / or telephone follow up calls.

Lambrinou E, Christoforou N, Kalogirou F, Protopapas A, Christofi P, Barberis V, Avraamides P, Middleton N.
Main Results

- A reduction of instant risk of HF deregulation at 3 months in 51% was found in the group of telephone follow up, \( [HR: 0.49 \text{ (95CI: 0.27-0.88)}] \) \( (p = 0.001) \), compared to conventional follow up group.

- Unfortunately, the promising results of the beneficial effect of the intervention in disease-free survival time for the first 3 months after randomization and perspective monitoring, does not appear to be maintained for long.

Lambrinou E, Christoforou N, Kalogirou F, Protopapas A, Christofi P, Barberis V, Avraamides P, Middleton N.
Both Nurse-led HF management research programs’

Short term results

• **Both Programs**
  • Have found to be successful, further establishing the effectiveness and safety of specialized innovative nursing interventions
  • Were embraced by the patients, recognizing the beneficial effects deriving.
  • Highlighted APN role as an imperative evolution of the nursing profession

• **Although the short-term and long-term cost effectiveness of the integration of APN role had been established through the research projects both programs encountered**
  • Doctors resistance deriving from the distress about their prestige and control power
  • Administrators and policy makers questioning for the possible financial requirements of APNs

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Both Nurse - led HF management research programs’ long term benefits

• Gained the attention of healthcare planners and key decision makers as well as key individuals, using evidence based practice.

• APNs in Cyprus started to be considered as essential players in community, long-term care and acute care settings for improving outcomes and quality of care and innovation to deliver more sustainable models of health care.

• The suggestion for a pilot implementation for a Nurse -led HF clinic has been accepted, to
  • Shorten the extended follow-up
  • Improve primary care services and interaction of HF patients with the current health services

• One step forward...
Conclusions

• Evidenced based practice and stakeholders’ embracement strategies are inadequate measures for the full integration of APN role in Cyprus.

• Legislation and regulation issues - major barriers in integrating APN role in Cyprus

• Role clarification - Poorly defined roles found to be a source of conflict, even among nursing community, despite the continuous explanation about nursing boundaries and APNs extended knowledge and skills as well as the expanded scope of practice

• Physician resistance – Cyprus has a very strong and resisting traditional paternalist medical model, in which nurses’ contribution is undervalued

• Medicalization culture and short-sighted perception of cost effectiveness in healthcare of all the health professionals, administrators and other stakeholders is difficult to change

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The fundamental strategy for the full integration of APN role in Cyprus

The support of Cypriot APNs from APN international bodies

The enrollment in international programs aiming the APN implementation among countries.
Thank you for your attention

“...Love responsibility. Say: It is my duty, and mine alone, to save the earth. If it is not saved, then I alone am to blame...”

Nikos Kazantzakis