

## Paper Presentations Wednesday, June 17, 2021

### Breakout Room 1 - Knowledge Development

Moderator Jane Flanagan

#### **ForGIVE: That's What's Up!™**

Chontay D Taylor Glenn, PhD, RN, PMHNP-BC

**Overview of Topic:** Forgiveness is conceptualized as a spiritual variable or concept related to the broader construct of Spiritual Distress. Forgiveness contributes to and/or is theorized as a partial antidote to Spiritual Distress. Spiritual Distress is currently defined as a state of suffering related to the impaired ability to experience meaning in life through connections with self, others, the world, or a superior being. Spiritual Distress has been approved as a nursing diagnosis by NANDA-I since 1978. The expressed need for individuals to forgive has been identified as a defining characteristic of Spiritual Distress in nursing research literature.

**Study Purpose:** Examine the role that forgiveness contributed to subsequent delinquent behaviors (substance use and delinquent acts) for adolescent males who have ACEs.

**Method:** Descriptive Correlational: Demographic characteristics including religion and risk and protective factors of delinquency were described. Additionally, level of forgiveness for ACEs, anger scores, and current substance use and engaging in delinquent acts were computed.

**Result:** The mean (*M*) scores expressed by participants were clinically abnormal for all variables analyzed: ACEs (3.66); Forgiveness (213.13); Anger (13.36); Substance Use (2.69); Delinquent Acts (47.30)

**Impact:** An expressed need to forgive adverse childhood experiences, increased anger and delinquent acts, and cases of substance use disorder was found. Early intervention for substance use disorder and prevention of incarceration, and forgiveness therapy is warranted to impact overall mental, behavioral, emotional, physical, and spiritual well-being. This study conceptualizes Spiritual Distress in lieu of the average abnormal scores of the study variables.

#### **Scoping review about forgiveness facilitation in palliative care: evidence to inform nursing intervention**

Sylvia Caldiera RN, PhD

**Purpose:** The aim of this paper is to provide a critical analysis of the importance of forgiveness intervention in palliative care.

**Overview of topic and impact:** Palliative Care seeks prevention and intervention in suffering, finding biopsychosocial and spiritual responses. Considering that the main objective of PC is to reduce patients and families suffering, "forgiveness facilitation" can represent a valuable response as a multidisciplinary and non-pharmacological intervention.

Scoping review, registered and based on the guidelines of the Joanna Briggs Institute (JBI), with the objective of mapping the knowledge of forgiveness facilitation as an intervention in palliative care. Forgiveness is an important theme in end-of-life care in all spiritual and religious traditions, and most studies are based on a psychological perspective. The intervention seems to be related to better mental, physical and relational well-being; better quality of life, decision making and communication; better self-

esteem and enhanced hope; reduction of depression, anger and anxiety; inner peace. Forgiveness facilitation is fundamental in PC. These results open new perspectives for research, clinical intervention and preparation of professionals acting in this area.

### **NANDA-I Syndromes: where are we and where to go?**

Syliva Caldeira RN, PhD

**Purpose:** The aim of this work is to provide a critical analysis of syndromes as currently listed in NANDA-I Taxonomy II.

**Overview of topic and impact:** NANDA-I syndromes seem to meet the multidimensionality and complexity of human responses to a health-disease event or condition. Only 13 syndromes are listed in the list of NANDA-I nursing diagnoses. The majority have a low level of evidence and seem to be poorly developed. Since diagnostic is critical in the nursing process and a guide to nurses' clinical reasoning and nursing practice, the development of nursing diagnoses such as syndromes is needed. A holistic assessment of the patients' needs seems to be provided by these diagnoses and might allow a more proper look to the whole and a patient-centered care. In addition, suggestions that are provided could raise the accuracy of NANDA-I nursing diagnoses, increase quality of nursing practice, but also provide changes in nursing education as curricula should promote a holistic critical thinking and implementation of an advanced care.

### **Clarification of the concept of healthy aging with a view to developing a nursing diagnosis**

Rosane Cardoso

**GOAL:** Analyze the concept of healthy aging and propose the development of nursing diagnosis.

**METHODS:** Concept analysis using the method proposed by Walker and Avant.

**RESULTS:** Four bibliographic databases were consulted and thirty-six articles were included. The attributes identified for the concept of "healthy aging" were: absence of physical impairment, absence of cognitive impairment, absence of disease, good psychological / mental functioning, social engagement, good self-perception of overall health and absence of limiting pain of function. Seven factors that influence healthy aging were identified, such as: ability to perform activities of daily living, healthy lifestyle, good educational level, family support, spiritual support, self-care and resilience. The consequences identified were: autonomy, independence and quality of life. From the conceptual analysis, the components of the new nursing diagnosis to be proposed were identified: Domain 1 - Health Promotion Class 1: Health perception. Title: "Willingness for Healthy Aging". Definition: Pattern of desire and / or motivation for health promotion that promote the development and / or maintenance of functional, psychological, cognitive and social engagement capacity for an aging with quality of life.

**CONCLUSIONS:** The conceptual analysis supported the development of the new nursing diagnosis "Disposition for healthy aging", which may help nurses in the implementation of actions aimed at promoting the health of the elderly. Proposing interventions. The establishment of this nursing diagnosis may provide nurses with the opportunity to implement interventions that promote the maintenance of functional capacity, cognitive capacity and social integration, aiming at healthy aging.

## **Save and meaningful SNL implementation - an impossibility!?**

Maria Müller-Staub RN, PHD

**Purpose:** The objective is to foster the implementation of evidence-based Standardized Nursing Languages (SNLs), such as the NANDA-I, Nursing Interventions (NIC) and Nursing Outcomes Classification (NOC), by distributing knowledge on promoting and constipating factors (pros + cons) of successful implementation strategies.

**Method:** First, effective implementation strategies were sought by a scoping review, and content analyses revealed qualitative categories. Second, categories were verified in focus groups with SNL experts to capture clinical/educational/research experiences to refine the literature findings.

**Results:** Pros are timely and accurate classification translations, their broad distribution on macro levels – such as national institutions, health care laws, nursing associations, publishers; and on micro levels – such as management and educational leader support, standards for Electronic Health Records (EHRs) and Nursing Process Decision Support Systems (NP-CDSS), easy database access, meaningful education, nurses' and vendors' knowledge and attitude, and collaboration with nursing implementation specialists.

Cons are: 'Unsteady' classifications, inaccurate translations, complicated publication/database access(es), classification costs, low knowledge on SNLs on macro and micro levels, an abundance of competing systems and missing professional consensus on the core body of knowledge in nursing.

**Impact:** The findings will be discussed with the audience to foster international discourse for delineating most effective implementation strategies.

## **Breakout Room 2 - Education**

**Moderator Susan Gallagher-Lepak**

## **High-tech simulation versus Case-study in nursing NNN education**

Anne Eshalu

**Background:** Estonian nurses got NANDA I first translated Definitions and Classification edition at 2012 and it was accepted as a tool in nursing practice and teaching from 2017 in all Estonian health-care institutions. In Tallinn Health Care College there are more than thousand nursing students studying on different courses of their 3,5 year training and compulsory part of the curriculum is to make nursing care plans every study-year using NANDA I diagnoses, NIC and NOC .

**Aim:** To describe first and second year nursing students diagnosing and planning skills formation via different teaching methods.

**Method:** To measure nursing students care plans quality using Q-DIO instrument.

**Results:** High-tech simulation case-studies create better diagnosing and planning skills than those based on the written case.

## **THE eMEDICATION PASSPORT – ENSURING THE DEVELOPMENT OF MEDICATION COMPETENCE OF GRADUATE NURSES**

Irene Bruus

**Introduction.** Several international studies have found that registered nurses' medication competence plays an important role in patient safety, at the same time indicating that graduating nurse students have deficiencies in their medication competence. Therefore, development of standardized nursing students' medication competence and standardized learning and evaluation techniques must be in place during the undergraduate nurses' study process and clinical practice. For this reason, four higher education institutions in the Baltic countries and Finland decided to launch the "eMed-PASS" project.

**Aim.** The main goal of the "eMed-PASS" project was to adapt and standardize the Finnish digital learning tool "eMedication Passport" into education context of the Baltic countries ensuring the nursing students' medication competence in the Baltic countries and Finland.

**Results.** As one of the results of the "eMed-PASS" project the standardized digital learning tool "eMedication Passport" in Baltic countries for nursing students was created and adapted. EMedication Passport consists of the general principles of pharmacology and medication administration as well as specific skills. At the same time it includes the tasks of multiprofessional collaboration and patient instruction, and the support of compliance.

**Conclusions.** The expected impact of the digital learning tool "eMedication Passport" is improvement on nursing students' medication competence by supporting the student in the learning process of pharmacology and medication administration during the undergraduate nurses' study process and clinical practice.

## **NURSING PROCESS TEACHING STRATEGY AND THE INTERRELATION OF NANDA-NOC-NIC TAXONOMIES**

Hortensia Castañeda-Hidalgo, PhD and Nora Hilda González Quirarte, MSN

**Introduction:** Nursing education seeks to develop an adequate method of work that requires it to adapt to the field and to function as a scientific and theoretical basis. The method that has influenced many professional advances in nursing is the Introduction to the Nursing Process, for the research and development of theoretical bases and performance of nursing duties it provides (Cereto, 2005). To teach this process correctly in schools of nursing, is a quotidian challenge.

**Aim:** To analyze the level about Nursing Process knowledge of Bachelor of Nursing senior students

**Materials and Methods:** This comparative study is quantitative, to know the study variable, it was used as a measuring tool a knowledge test to a population consisting of 140 students, who were divided into four groups. There was an educational intervention as a workshop about nursing process that lasted 20 hours and two simultaneous measurements were performed in all four groups, one before and one after completion of the educational intervention. Ethical considerations of the study, based on the General Law of Health in Research in Mexico were respected.

**Results:** The findings suggest that most of the population surveyed, 82% were women, the average age of the participants was 22 years, which in the pre-test a low level of knowledge was obtained in 38% of cases unlike post -test with 6%. The moderate level of knowledge prior to the intervention nursing process

was 60% against 72% at the end of the intervention and the high level of knowledge before the intervention was 2% and 22% after the educational intervention. That is, the knowledge level they had of nursing process before the educational intervention was mostly low- and middle and at the end of the intervention the highest percentage was observed in the medium and high level of knowledge of nursing process.

**Conclusion:** The Nursing Process is viewed as a scientific method of work that provides a foundation to practice and supports professional performance. Effective teaching of this process must include diverse pedagogical strategies in order to account for the diverse learning styles among students. The analysis of the results of the pre, post-test provided clear evidence about the increase, incorporation, and application of professional language contained in NANDA, NOC, and NIC among participants.

**Implications for practice:** All faculty members in our School of Nursing use the same professional language contained in NANDA Nursing Diagnoses, NOC, and NIC to guide teaching objectives and evaluation criteria.

Instructors use the patient's assessment sheet in all nursing courses. Nursing Process teaching hours increased after the intervention.

### **Evaluating the effects of *Guided Clinical Reasoning (GCR)* - an educational intervention**

Claudia Leoni-Scheiber

**Purpose:** The purpose was to evaluate the effects of *Guided Clinical Reasoning (GCR)* - an educational intervention fostering nurses' diagnostic competencies - on nurses' knowledge, attitude, clinical performance, and on the *Advanced Nursing Process* quality.

**Method:** From 2016 to 2018, in a Swiss hospital an experimental intervention study with data and method triangulation was performed. Registered nurses (N=95), nursing records (N=225), and patients (N=24) were included. Nurses' knowledge and attitude were evaluated with questionnaires/tests, the nursing records with the instrument *Quality of Diagnoses, Interventions and Outcomes Revised (Q-DIO R)*. Nurses' clinical performance was examined by evaluating the congruence of nursing diagnoses, interventions, and outcomes between findings of observations, patient interviews and record audits.

**Results:** After GCR training, nurses had greater knowledge ( $p < 0.005$ ) and a more positive attitude ( $p = 0.004$ ) on the *Advanced Nursing Process* in comparison to the control group. The congruence of nursing diagnoses, interventions, and outcomes between observations, interviews, and records was higher in the intervention group. Nursing diagnoses were stated significantly more accurate, interventions were more effective, and better patient outcomes were achieved (all  $p < 0.0005$ ).

**Impact:** Due to the significant patients' and nurses' results, GCR is recommended for use in ward-based case meetings as well as a teaching method.

### **Nurses & Student Nurses Perceptions Related to EHR Patient Care Planning**

Cheryl Wagner

**Introduction with Problem Statement:** Perceptions of nurses related to current electronic documentation of patient care planning is under-reported. Evidence indicates nurses are dissatisfied with existing systems, but there are no clear data indicating what nurses find useful or what needs to

change. Many institutions use pre-fabricated non-individualized electronic care plans. Nurses don't want systems that require time to create original or update current care plans.

**Problem Statement:** Perceptions of nurses and student nurses related to current electronic documentation of patient care planning indicates dissatisfaction with existing systems, yet lack of interest in changing.

**Methods:** Nurses and nursing students at mid-level midwestern hospital with its associated school of nursing were surveyed regarding their perceptions of current electronic health record care planning documentation and their desire to change to another system (NANDA-I, NIC, NOC).

**Results and Discussion:** SPSS analyses including participant comment reviews indicated subjects perceive current electronic care planning documentation systems as inadequate to patient/nurse needs, but change is undesirable for several reasons, including lack of time to create individualized care plans and high comfort levels with pre-fabricated non-individualized care plans.

**Impact on the Discipline:** A major implication for the nursing discipline is to reevaluate care planning and how nurses can more easily apply it in the current electronic health record documentation systems.

### **Breakout Room 3 - Research**

**Moderator: Miriam Rodriguez Monforte**

#### **Characterization of the nursing diagnosis "sedentary lifestyle" (00168) in elderly people with diabetes mellitus**

Marcos Oliveira

**STUDY PURPOSE:** To provide a characterization of the nursing diagnosis sedentary lifestyle in elderly people with Diabetes Mellitus.

**METHOD:** A descriptive, exploratory and cross-sectional study with a quantitative approach was carried out in elderly people with Diabetes Mellitus. A clinical questionnaire was developed, composed of questions addressed to the elderly public and that allowed to evaluate each Defining Characteristic (DC) and each Related Factor (RF).

**RESULTS:** There is a high rate of sedentary lifestyle in elderly people with diabetes, over 60%. The presence of the characteristics "Average daily physical activity is less than recommended for gender and age" and "Decreased muscle strength" and the occurrence of the related factors "Insufficient interest in physical activity" and "impaired mobility" are crucial for the statement of this diagnostic.

**IMPACT:** This study confirms that "Average daily physical activity is less than recommended for gender and age", "decreased muscle strength", "decreased flexibility of joints", "Physical deconditioning", and "Preference for activity low in physical activity" are clinical indicators showing sensitivity, and "Insufficient interest in physical activity", "Insufficient knowledge of health benefits associated with physical exercise", "lack of confidence for the practice of physical exercise" and "impaired mobility", are indicators showing specificity.

## **Validation of the content of the nursing diagnosis Activity intolerance in heart failure patients**

Natany Ferreira

**Aim:** To validate the content of the nursing diagnosis Activity intolerance in heart failure patients.

**Method:** This is a content validation study by raters based on wisdom of the crowd and predictive diversity theorem. The number of raters was calculated based on the content validity index to be reached. We used a data collection instrument composed of two parts: the first part to identify the raters' profile and the second part aims to identify the clarity, relevance and precision for components of the nursing diagnosis Activity intolerance according to the judgments.

**Results:** The panel of raters was predominantly composed of individuals who have or are studying at the master level and worked in hospital institutions. All have experience with nursing diagnosis and participate in research projects. All proposed indicators were considered relevant to identify the diagnosis of activity intolerance. All suggested etiological factors were considered relevant for activity intolerance, except for the indicator Bed rest.

**Impact:** These findings can contribute to the practice of nurses regarding the identification of activity intolerance in patients with heart failure.

## **Translation and cross-cultural adaptation of clinical reasoning prompts to guide diagnostic reasoning into Brazilian Portuguese**

Lidia Guandalini

**Purpose:** To adapt and validate the content of American clinical reasoning prompts (CRP) to guide diagnostic reasoning into Brazilian Portuguese.

**Method:** 1)English-Portuguese translation; 2)Synthesis; 3)Back-translation; 4)Review of back-translation by the original author; 5)Iterative review based on authors' opinion; 6)Expert committee review of cultural equivalence and content validity (clarity and practical relevance). Expert agreement >80% and content validity index (CVI) >0.8 were considered satisfactory; and 7)Pre test: A clinical trial with 25 nursing students (Intervention Group (IG, n=14) used the CRP to identify a patient's problem/nursing diagnosis and cues used to come to conclusions in a case study; Control Group (CG, n=11), did not use the CRP).

**Analysis:** Diagnostic accuracy was scored from +5 to -1 according to the Lunney Scoring Method. The Mann Whitney test was used to test differences in accuracy and number of cues identified between Groups.

**Results:** Minor adjustments were required during the adaptation. Items with low expert agreement were revised. There was no significant differences between IG and CG group in diagnostic accuracy (2.64±1,78 vs 2,4±1,84), etiology accuracy (2,57±1,16 vs 2,7±0,95) and number of cues identified (3,43±1,45 vs 3,6±1,51).

**Impact:** CRPs was not effective in increasing diagnostic accuracy. It should be tested with nurses with clinical experience.

## **Assessment of caregiver contribution to heart failure self-care: cross-cultural adaptation and content validation of a specific instrument to Brazilian Portuguese**

Camila Takao-Lopes, RN, PHD

**Purpose:** To adapt the Caregiver Contribution to Heart Failure Self-Care (CACHS) into Brazilian Portuguese and to estimate the content and face validity of the adapted version.

**Methods:** The following steps were performed: Forward and back-translation; rounds of expert evaluation (n=7) for conceptual, semantic, idiomatic and cultural equivalences; rounds of expert evaluation (n=6) for content validity (clarity, theoretical relevance and practical pertinence); cognitive debriefing by 46 caregivers (CGs); review of the aspects suggested by the CGs and new test (n=6 CGs).

**Analysis:** Agreement rates  $\geq 80\%$  and content validity coefficients (CVC)  $> 0.80$  were considered acceptable during expert evaluations.

**Results:** The translations were considered consistent with the original CACHS by the authors of the original CACHS. The instrument reached adequate agreement rates and CVC after two rounds of expert reviewing. The CGs requested explanations on three items. After reformulation, all CGs understood the Brazilian version of CACHS.

**Impact:** CACHS – *Versão Brasileira* is equivalent to the original version and reached satisfactory evidences of content and face validation. After further psychometric testing, this version should allow for the measurement of a phenomenon of concern to the Nursing discipline, as well as planning of educational interventions towards the patient-caregiver dyad, considering the gradient of CGs contributions to self-care.

## **Using NANDA-1, NIC and NOC to uncover the role of nursing care on clinical outcomes for the patients hospitalized with COVID-19**

Karen Lopez

### **Paper Presentations Thursday, June 18**

#### **Breakout Room 1 - Informatics**

**Moderator: Christine Spisla**

## **Machine Learning for Lymphedema Diagnosis**

Mei R Fu, RN, PhD

In the digital era, the application of computer science, such as machine learning, has proven to be a powerful tool for healthcare and nursing in diagnosing or predicting various illness conditions. Symptom features are indicators for abnormal changes in body functioning due to illness or adverse effects of treatment. Lymphedema, associated with more than 20 symptom features, is one of the most distressing and feared late adverse effects from cancer treatment. Currently there is no cure for lymphedema, but early diagnosis can help patients to receive timely interventions to effectively reduce the risk of lymphedema progression to chronic or severe stages. This study appraised the accuracy, sensitivity, and



specificity to detect lymphedema status using machine learning algorithms based on real-time symptom report. A total of 355 patients from US completed the study. Statistical and machine learning procedures were performed for data analysis. The performance of five well-known classification algorithms of machine learning were compared. The Artificial Neural Network achieved the best performance for detecting lymphedema with accuracy of 93.75%, sensitivity of 95.65%, and specificity of 91.03%. Such detection accuracy is significantly higher than that achievable by current and often used clinical methods and is highly promising to improve lymphedema outcomes.

### **SIPCE+AI: A NURSING INFORMATION SYSTEM TO UNDERSTAND AND EXPLOIT THE NURSING PROCESS KNOWLEDGE**

Emilio Carcamo

**PURPOSE:** This study describes the implementation of NANDA-I in Information System for Clinical-Community Nursing Practices (SIPCE) in educational settings and the design to a secondary use of nursing records to extract knowledge and facilitate the nursing process in clinical environment, implementing natural language processing (NPL) methods from the SIPCE data warehouse.

**METHODS:** The information collected in SIPCE from January 2015 to June 2019 was used in this work; for this period there were 11.039 records with 235 diagnoses and 5600 related factors and defining characteristics from NANDA-I. The first stage used the 235 diagnosis codes as input corpus over a Word2vec model to produce a code embedding, which each NANDA code being assigned a corresponding vector in the latent space. As second stage, uses the codes embedding to fed a deep learning network to detect the relationships between the NANDA diagnosis codes with the nursing outcomes.

**FINDINGS:** SIPCE software summarize the nursing care plans executed by the students during their practices, allowing the consult of the most frequent nursing diagnosis. SIPCE enables the evaluation of each student's academic performance and consolidate the workforce of student and professor of the nursing school in clinical and communitarian settings. The NANDA language processing allows identify the main concepts from nursing diagnosis and their semantic relations.

**CONCLUSIONS AND IMPACTS ON THE DISCIPLINE:** The use of SIPCE software assist the nursing teaching process, document the evidence of the value of nursing workforce, and evolve the nursing standardized language implementation. Data storages of NANDA-I diagnosis and the AI techniques empowering researchers and students to extract knowledge from nursing notes and facilitate mapping between terminologies.

### **Auto prompted nursing interventions triggered by NANDA-I within the electronic patient record**

Monica Linhart

An automated interface from the NANDA-I diagnoses is linked to LEP nursing interventions (a multilingual standardized nursing intervention and workload measurement framework). This supports the user in practice by auto prompting suggestions for the most relevant interventions with a given diagnosis; this is customisable to allow for organizational policies or restrictions. Utilizing the interface increases the explanatory power of nursing data with regards to NANDA-I; and significantly reduces documentation time. Practice relevant data can be made available for the differing information needs of patient care teams, supervisory, administrative or management users.

For the demonstration of a practical application of the interface the top nursing diagnoses (ND) were drawn over 3 months from the quality management data set of a medium-sized clinic in Switzerland. With the example of the ND 'Risk for Falls' it will be shown how data from this automated interface are able to inform practice and expand knowledge; highlighting outcomes and benefits for the different stakeholders, in terms of speeding workflow and documentation, accuracy of care delivery, statistical analysis, training needs analysis, workload prediction and even patient billing.

### **Implementation of computerized PRS associated with nursing diagnoses (NDs)**

Amalia di Fatima Lucena

**Background:** Predictive risk scales (PRS) assist patient risk assessment for healthcare related complications, potentially increasing diagnostic accuracy and healthcare quality/safety. **Objective:** To describe the implementation of computerized PRS associated with nursing diagnoses (NDs).

**Method:** Report of a multi professional experience by a team of nurses, physicians and systems analysts, developed in a Brazilian university general hospital (850-beds) between 2018/2019. The PRS used on paper were translated into software linked to the NDs on the institutional electronic health record (EHR).

**Results:** Ten PRS were computerized (i.e. Braden Scale), which support directly the NDs. Nearly 800 nurse staff professionals working at 35 hospital units were trained to use the EHR-based PRS tools. In the first 6 months, 164,422 PRS were filled by the nurse staff. The scores obtained with the EHR-based PRS generate alerts that suggest a certain ND (i.e. Risk for pressure ulcer), and that preventive nursing interventions orders must be considered. In this period ND orders driven by PRS alerts increased by 80% (2019 vs 2018 period).

**Impact:** EHR-based PRS linked to NDs facilitated nursing interventions. Whether EHR-based PRS impact healthcare related complications remains to be clarified and must be subject of future research.

### **Novel palliative care framework to the analysis of diagnosis-intervention-outcome linkages retrieved from EHR nursing documentation**

Tamara Goncalves Rezende Macieira

**Purpose:** Develop a framework for the analysis of standardized nursing diagnoses, interventions, and outcomes linkages (DIO) to answer questions around palliative care patients.

**Methods:** Nursing data coded with NANDA-International, Nursing Interventions Classification, and Nursing Outcomes Classification (i.e., NNN) for hospitalized older adults (aged 85 and older) were retrieved from nine units at four hospitals. A total of 3,277 unique DIO were classified as one of eight palliative care categories (family, well-being, mental comfort, physical comfort, mental, safety, functional, physiological). Two researchers independently classified the first 1,000 unique DIO. Using the consensus DIO classifications as training data, random forest classifiers were built with four different sets of predictors (NNN domains, NNN domains and 3 key words, NNN classes, and NNN classes and 3 key words).

**Results:** The inter-rater reliability between the two researchers was 78%. The predictors "NNN classes and key words" achieved a classification accuracy comparable to a human rater (82%). These predictors were used to classify the remaining 2,277 DIO.

**Impact:** The adoption of a novel framework to the analysis of an interoperable dataset of standardized nursing data provides insight for the care of a population in great need, supporting the value of informatics to improve patient care.

**Concept analysis of the NANDA International nursing diagnosis Risk for perioperative hypothermia (00254)**

Manuel Schwanda

**Study Purpose:** The objective of this study is to refine the current NANDA International nursing diagnosis (ND) Risk for perioperative hypothermia (RPH) (00254).

**Method:** A concept analysis including the steps according to Walker and Avant (2005) was carried out, and two theoretical case studies (a model and a contrary case) were constructed.

**Results:** A total of 47 analyzed publications, published between 2008 and 2019, support the current and additional/new risk factors (RFs), at risk populations (RPs), and associated conditions (ACs) (antecedents), as well as the current definition of the ND. Furthermore, consequences (e.g. increased intraoperative blood loss, risk for wound infection, length of hospital stay or mortality) could be identified. Regarding the definition of empirical referents, three risk assessment instruments were found that can predict intraoperative hypothermia, and operational definitions for the RFs, RPs, and ACs are provided. In addition adequate nursing interventions, and nursing outcomes were selected.

**Impact:** Lunney and Müller Staub (2012) suggested that concept analyses are necessary for diagnosis development, and important to maintain the NANDA International taxonomy evidence based. Moreover, the results of this study may help to increase the Level of Evidence (Herdman & Kamitsuru, 2018) of the current NANDA International ND RPH. *Support for this study funded in part by a grant from the NANDA International Foundation.*

**Breakout Room 2 - Practice**

**Moderator: Camila Takao-Lopes**

**STANDARDIZED LANGUAGE OF NURSING IN PRIMARY CARE**

Magister Rosa del Pilar López Ruales, Lcda. Jessica Paola Canacúan Ipiales

Magister Viviana Espinel Jara Universidad de Técnica del Norte and Universidad de las Américas.

**INTRODUCTION:** In primary health care Nursing has acquired increasing responsibility by becoming care managers. The Nursing Care Process is a working method that involves knowledge, skills, abilities, competences, attitudes and values acquired during professional training. The taxonomy NANDA, NOC and NIC (NNN), contributes to the application of care with a standardized and proper language that can be applied to all work environments. Having the Primary Health Care particular characteristics that demand the application of the Nursing Care Process to individuals, families and communities, the standardized language of nursing generates spaces for reflection and professional development.

**FRAMEWORK:** Primary Care manages the health of people, families and communities, both in the concepts and in the way of paying attention to the population. It has gone from being punctual and

focused on the pathology to a person's attention, with the participation of the family and the community as subjects of nursing care, framing the entire process in health-disease continuity (MSP Ecuador, 2012). Public health works in the outpatient field and deals with aspects such as environmental health, vaccines, monitoring of communicable pathologies in the community and the way in which the health professional and particularly the nurse performs their work framed in the professional relationship and safety standards and care ethics. The process of community nursing begins with the collection of data through the home visit and the assessment with the family file to develop a familiogram, Ecomapa, Family Circle, Family Apgar and define biological, physical and social risks that allow to develop diagnoses of nursing, results and interventions for individuals, families and communities. This integrative vision of nursing work in primary care and the use of taxonomies reveals the importance of integrating the family as a unit of observation and nursing care ( Parra-Giordano, González-Molina , & Pinto-Galleguillos, 2016).

**OBJECTIVE:** The objective of this research was to identify the experience in the application and development of the nursing methodology in community health units.

**METHODOLOGY:** A descriptive, longitudinal and observational study was conducted with a quantitative approach to clarify and compare data. Two observational guidance instruments and survey were used and developed in 24 urban and rural health units with a total of 222 Nursing professionals, in health zone 1, Ecuador 2019. The survey was aimed at identifying knowledge, application and attachment to the nursing methodology in community care.

**RESULTS AND DISCUSSION:** The main results show that the nurse taxonomy is mainly used by Nursing Interns, the predominant form of assessment was the family file with 46.15%, they identified the Theory of Health Promotion (Nola Pender) as the closest to community work in a 50%. They recognized that 86.54% of cognitive, technical and interpersonal skills are needed for the application of Nursing Care Process and recognize 84.62% that NNN taxonomies can be applied at all stages of community nursing care. Also, among the difficulties for the application of this language they mention lack of time and commitment, however, 93.4% of professionals with less than 5 years of experience are willing to receive training to improve their application.

**IMPACT ON THE DISCIPLINE:** The use of standardized languages in nursing is a strategy to ensure quality by offering mechanisms that guarantee its use not only to ensure accreditation processes in health units, but mainly to strengthen professional identity and improve comprehensive health care.

### **Community Mental Health Nursing assessment (set of instruments) in a population with severe mental disorder**

Maria Antonina Roman Ochoa

Purpose: To base and categorize the mental functioning involved in daily activities, in order to monitor and control psychiatric symptoms.

24 hours of nursing care requires ensured continuous care. In a hospital setting the delivery of the shift is efficient, due to the type of interdependent intervention (managing procedures and prescriptions of other professionals), but imprecise in Community Mental Health, where it does not consider the subjectivity and daily life of people in chronic processes with deteriorated autonomy, in the rehabilitation processes.

Descriptive observational study, framed within the qualitative paradigm. Through participant observation, a therapeutic assessment and support strategy will be implemented derived from the relational processes mediated by Nursing Care. The unit of analysis is composed by people with Severe Mental Disorder (selected for convenience), users of a Community Rehabilitation Center in the city of Bogotá D.C. - Colombia.

This assessment using a set of instruments guides the care of the nursing team and their relationships. Field tracking record, which supports subjectivities, highly technical in the care of people seeking autonomy; analyzes and profiles responses in nursing diagnoses, with therapeutic goals, according to their interventions, in the form of results.

República de Colombia, Ministerio de Salud y Protección Social. Política de Atención Integral en Salud: Hacia un nuevo modelo de atención integral en salud. Bogotá D.C.: Viceministerio de Salud Pública y Prestación de Servicios, Ministerio de Salud. 2016. [Internet]; 92 p. Disponible en:<https://www.minsalud.gov.co/Documentos%20y%20Publicaciones/Pol%C3%ADtica%20de%20Atenci%C3%B3n%20Integral%20en%20Salud.pdf>

### **Countermeasures to prevent aspiration pneumonia for elderly COPD patients**

Tomoko Hasegawa

**Study purpose:** In order to find countermeasures to prevent aspiration pneumonia for elderly COPD patients, this study tried to clarify the patients' swallowing functions, oral health conditions and their influencing factors.

**Methods:** 50 COPD patients aged older than 65 years and independent ADL were invited in this study. Swallowing function was assessed by using the Dysphagia Risk Assessment for the Community-dwelling Elderly: DRASE. Oral health conditions were assessed by using the Japanese Version of the Oral Health Assessment Tool: OHAT – J, Bacterial Counter (Panasonic), and identification method of pneumonia causing bacteria (MALDI-TOF MS method). Oral self-care behaviors were assessed by a self-oriented assessment sheet.

**Results:** About 60% of the subjects had decreased swallowing functions. About 90% of the subjects had exceeded level of oral bacteria counts (more than 6.5 Log<sub>10</sub> CFU/mL). About 70% had unhealthy level of "Oral cleanliness" and "Tongue" in the OHAT-J. Less than 50% of the subjects had tooth brushing habit before sleep, and less than 30% had regular dental check-ups.

**Impacts:** The elderly COPD patients who were able to do ADL independently had unhealthy oral conditions and risks for swallowing pneumonia. More intensive interventions are needed for these patients.

### **Evaluating the Utilization of Standardized Nursing Care Plan and Its Challenges in a Tertiary Health Institution in Nigeria**

Iyanuoluwa O OJO, University of Ibadan, Oyo State. Nigeria; Adenike A. E OLAOGUN, Obafemi Awolowo University, Ile Ife Osun State. Nigeria; Prisca O ADEJUMO. University of Ibadan, Oyo State. Nigeria

**Background:** Standardized Nursing Care Plan (SNCP) is a printed action plan that outlines the nursing care and this has become the gold standard of nursing practice for the transformation of care globally. However, in Nigeria the utilization remained low in spite of all effort put in place by appropriate authorities to ensure its utilization. As such it has reduced the visibility of nurses in the health care.

**Aims:** The aim of this study was to evaluate the quality of nursing documentation in SNCP within 2015 – 2017, investigate the perceived quality of SNCP utilized and explore what the nurses/ stakeholders perceive as the challenges to the utilization of SNCP in the selected tertiary health institutions. The difference in the nurse's quality of documentation and nurses specialties; nurses' qualifications and perceived challenges to SNCP utilization were tested.

**Methods:** The Cross-sectional descriptive study using qualitative and quantitative methods of data collection was adopted. A tertiary teaching hospital in Nigeria participated with 68 nurses which was proportional distributed across the three wards (Medical, Surgical and Psychiatric). Ninety nine SNCPs were reviewed (33 each from the years of study; 2015, 2017 & 2018). Consequently, key informant interview were done for 3 stakeholders that include (Chairman Medical Advisory Committee (CMAC), Director of Nursing Service (DNS) and Director Health Information (DHI) and In-depth Interview was carried out among 11nurses. Descriptive and ANOVA analyses were conducted.

**Results:** The findings from the study shows that there was significant difference ( $p= 0.00$ ) across the year being studied. The year 2016 had the highest score ( $15.52 \pm 2.79$ ) for Nursing Diagnosis as product and Nursing intervention while the year 2015 had the lowest score ( $12.91 \pm 6.21$ ;  $4.67 \pm 2.47$ ) and Nursing– Sensitive Patient Outcomes score were highest in 2017 ( $8.52 \pm 5.94$ ). In furtherance, that majority of the respondent 53(77.9%) rated the SNCP utilized on the wards to be of high quality. Also, the results showed that majority of the participants disagree that Atmosphere of workplace and failure of nurses as a diagnostician serves has a barrier to SNCP ( $2.68 \pm 1.03$ ;  $2.68 \pm 0.85$ ) while, the participant strongly disagree that Lack of mandate from educational system to use standardized nursing languages among others serve has a barrier to SNCPs use ( $1.87 \pm 0.73$ ).

Emerging themes from the key informant and in-depth interview in relation to the challenges on utilization of SNCP *“inadequate staff and non-payment of salary as at when due “and this is at variance with quantitative study which showed that the participants disagreed that in adequate staffing 42(61.8%); and 45(66.2%) lack of motivation is a barrier to non-use of SNCP.*The difference in the nurses' quality of documentation and nurses' specialties area were not significant with p value 0.48 while nurses' qualifications and perceived challenges to SNCP utilization were significant with the p value 0.00.

**Conclusions:** Evaluation of utilization of SNCP was helpful in determining those challenges nurses and other stakeholders genuinely faced with, and the use of SNCP has helped to improve the quality of documentation of care.

### **Breakout Room 3 - Research**

**Moderator: Sylvia Caldeira**

### **Gender perspective in the use of the NANDA taxonomy: status of the issue**

Rosa Rifa Ros

#### **Introduction**

In recent years research on health determinants along with gender has shown the need to understand and address the specific subjectivities and needs of different people (1-3). In this sense, the purpose of

this project is to analyze the gender perspective in nursing diagnoses contained in the NANDA taxonomy and in their use.

**Aims and Objectives:** To analyze the presence of gender bias in nursing diagnoses contained in the NANDA taxonomy and in its use.

**Specific objectives:**

- To identify the most frequent nursing diagnoses applied in care plans designed for men and women.
- Identify the defining characteristics identified for men and women
- Identify related factors identified for men and women
- Describe the aspects that should be considered when analyzing the NANDA taxonomy from a gender perspective.

**Material and method:** This study will be carried out in three phases. Phase 1 will carry out a systematic review of narrative analysis of publications that develop and/or use nursing diagnoses during the period between 2002 and 2019, and identify the frequency of use in care plans, defining characteristics (DC) and related factors (RF) identified for men and women. The CASPe system will be used to filter and analyze the documents. (4) Phase 2 will use the Delphi technique to achieve consensus between a selected group of experts in nursing diagnostics and another group of experts in gender on the variables to be considered to develop a questionnaire through which to analyze with a gender perspective the three levels of NANDA taxonomy. The consensus will be evaluated with the calculation of the median and standard deviation of each item according to the scores obtained by the participating experts (5). In the 3rd phase the questionnaire elaborated in the NANDA Taxonomy analysis will be applied following the criteria agreed in the 2nd phase.

**Results and conclusions:** The results of the bibliographic review will be presented in the databases that will show the bibliometric data of the selected publications (journal, year of publication, language, database, author affiliation, country of publication, study methodology, study population), journal metrics) and the results related to the first three specific objectives of the research (study population, age, care setting, nursing diagnoses identified in men and women (or if there is no differentiation) and if proceeds the distribution of the defining characteristics and related/risk factors by sexes, edition of the taxonomy used for the results).

### **Nursing interventions related to breastfeeding establishment in a neonatal unit**

Elenice Carmona

**Purpose:** To describe nursing interventions performed by nursing staff to support breastfeeding in a neonatal unit.

**Method:** Descriptive and cross-sectional study in a 30-bed neonatal unit. The sample size were 61 mothers-infant dyads, which met the following criteria: infants in semi-intensive care who were in the process of establishing breastfeeding, with at least 24 hours of breastfeeding suction, premature or full term. Data were collected through videos of mothers breastfeeding their children and registers of medical records. Data were analyzed according to descriptive statistics.

**Results:** Of the nine NIC studied interventions, five were the most frequent: Child care: newborn (6824); Neonatal Care: Kangaroo Method (6840); Lactation counseling (5244); Infant Care (6820); Child Care: Preterm (6826).

**Impact:** Comparison between nursing care recorded in patients' medical records and NIC interventions showed that records are scarce. In addition, care related to bonding and coping seems to be poorly valued in records, although the literature states its relevance in neonatal units.

### **Content validation of Nursing Outcomes Related to Breastfeeding Establishment**

Suellen Emidio, RN PhD

**Purpose:** to review Nursing Outcomes (NO) "Establishment of breastfeeding: infant" and "Establishment of breastfeeding: mother", presented by Portuguese version of Nursing Outcomes Classification, 5<sup>th</sup> edition.

**Method:** A methodological study performed in two steps: integrative review and content validation.

**Results:** Changing the label from "Breastfeeding establishment: infant" to "Breastfeeding establishment: Newborn & Infant", because the second version approaches the ages when the phenomenon can occur; Changing the definition of both NO because there is no literature to support the mentioned period of three weeks of the first version. Other changing in the definition is the use of "mother's nipple-areolar complex" instead of "breast"; Taking off the indicator *Proper alignment related to breast (100001)* from the NO related to infant and add it in the NO "Breastfeeding establishment: maternal (1001)". It was proposed to exclude indicators as *Stop to burp infant at frequent intervals (100015)* and *Responses to infant's temperament (100112)*; as well as to add the indicators *Professional support perceived by the mother*; *Mother and child interaction*; *Perceived milk production*; *Skin-to-skin contact* to "Breastfeeding establishment: maternal (1001)".

**Impact:** The proposed modification of the studied NO content may help in refining the classification, making it closer to the clinical practice of nurses.

### **Risk of corneal injury in intensive care unit patients**

Patricia Do Prado

**Objective:** To identify the incidence and risk factors for nursing diagnosis risk of corneal injury.

**Method:** prospective cohort performed in patients from an intensive care unit in northern Brazil. Data were analyzed using SPSS version 22.0 using the Kaplan Meier method to estimate the likelihood of corneal injury and Cox regression to identify risk factors.

**Results:** Of the 149 patients in the sample, 83.9% had risk of corneal injury and 18.8% had corneal injury. Of this, 78.6% were grade I and 75.0% developed between the seventh and tenth day of follow-up. Patients with eyeball exposure (22.3%), chemosis (22.9%), glasgow minor 6 (17.5%), eyelid edema (20.6%), with blinking reflex less than 5 times per minute (16.9%) and lagophthalmia (75.0%) were more likely to develop the diagnosis (log-rank <0.05). In the final model, patients with lagophthalmia had (HR: 3.47; 95% CI = 1.39-8.67) higher risk of corneal injury.



**Impact:** Lagophthalmic patients do not close their eyes properly and are at greater risk of developing corneal injury. This variable can be added to the NANDA-I taxonomy and contribute to greater vigilance in patients at risk of corneal injury in ICU.

### **Risk for protein-/energy malnutrition**

Sylvia Brunner

The study purpose was to develop a risk nursing diagnosis which supports nurses in identifying the risk for malnutrition in geriatric patients.

**Overview.** The prevalence of this risk in geriatric inpatients is around thirty percent. Its consequences are prolonged wound healing, increased care dependency and higher mortality rates. Often, nurses are not aware of the therapeutic significance of the nutritional status.

**Method.** A narrative literature review was conducted - and by content analyses - risk factors were elaborated inductively. Findings were validated by interviewing geriatric patients and by observations of the nutritional process in a 213-bed hospital. All data was analyzed descriptively according to the defined codes, and summarized in tabular format (Mayring, 2015).

**Results.** Twenty studies and data from twenty-two geriatric patients were included. First, the most frequent risk factor was 'inconvenient environment' including meal disturbances. Second, health care workers' attitude (not-asking about appetite) is an important cause. Third, care dependency is a major risk factor besides age, female gender and appetite loss.

**Impact.** This new risk nursing diagnosis will support nurses to understand, recognize and describe geriatric patients' nutritional situation. It will empower nurses to intervene timely and effectively.