SELF-STUDY REPORT

FOR THE REVIEW PROCESS OF RE-ACCREDITATION

CENTRE FOR INFORMATION SYSTEMS RESEARCH AND DEVELOPMENT OF PORTO NURSING SCHOOL // PORTUGAL

CIDESI // ESEP // PORTUGAL

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INTRODUCTION

To improve the quality of nursing education and care, throughout the research and development of Nursing Information Systems (NIS) and the support of ICNP® development, in collaboration with ICN, is the mission of the Centre for Information Systems Research and Development of Porto Nursing College – Portugal, established in 2010.

Our work plan for the past three and half years was designed within the mission and goals of the Nursing School of Porto (ESEP) and as an active constituent of the School Research Unit (UNIESEP), relating with all the projects within its scientific and pedagogic areas.

Through ESEP, the Centre had a straight cooperation with the Ordem dos Enfermeiros (National Nurses Association - ICN member).

2010-2013 GOALS AND OBJECTIVES COMPLIANCE

In 2010, our goals were established having in mind the main areas of research, development, education and dissemination of nursing, with the use and propose of providing the continuous development of ICNP®.

GOAL 1

To develop nursing information systems using ICNP® v2.0 as part of an integrated Electronic Health Record to improve the quality and continuity of patient care.

CIDESI described the nursing information system in use on nursing practice and performed the translation, cultural adaptation and validation of the instrument "Clinical Information System Evaluation Scale" (Gugerty, 2005).

Now we are developing the definition of the main components in nursing documentation and the definition of a framework for nursing documentation to be incorporated in the electronic health records.

GOAL 2

To develop Catalogues using the ICNP® v2.0, for improvement of the nursing care quality, in the dimensions of "management of therapeutic regimen", "long-term care", "self-care dependency" and related "family member caregiver role".

CIDESI has achieved this goal through the accomplishment of its subsequent objectives:

We developed frameworks based on the core areas of nursing and on the main components that needed to be incorporated in the electronic health record, describing the model of nursing practice in use, identifying with nurses of our partners clinical sets (Hospital and Health Centres of Matosinhos and St. António Hospital) the main components of nursing documentation, in terms of diagnosis, interventions and nursing sensitive outcomes, and defined a valid framework for nursing action, defining the framework for nursing documentation to be incorporated in the electronic health record.

We developed and implement the use of ICNP® v2.0 in nursing practice through the reflection in action, describing the significance of each term for nursing practice, and testing in clinical settings the use of nursing diagnoses, interventions and outcomes.

We integrated ICNP® v2.0 as the classified language in nursing documentation, developing nursing diagnoses, interventions and outcomes and ICNP® according Catalogues: "long-term care" that includes "self-care dependency" and related "family member caregiver role"; and "self-care management in patients with COPD".

GOAL 3

Using e-learning as a resource for the dissemination and use of ICNP® v2.0, to: Portuguese and Portuguese-speaking Countries pre and post-graduation students; Portuguese and Portuguese-speaking Countries nurses.

Regarding the objectives of this goal, ESEP developed an effort on providing new tools and strategies in e-learning education, defining the technical resources required for providing of content for e-learning. We are now defining strategies for implementation and evaluation of e-learning, for further supporting of Catalogues dissemination.

Although not yet accomplished the objective of dissemination of the ICNP® v2.0 in Portuguese-speaking countries, using e-learning platforms, we established several partnerships and collaboration with colleagues of Brazil, mainly from the São Paulo and Minas Gerais Universities.

We also organized a web seminar "Interactive Educational Technologies" with Chao Wen Lung and Diogo Miranda, from the department of Telemedicine of the Universidade de São Paulo – Brazil.

GOAL 4

To develop a Nursing Information Systems Master program.

In ESEP we currently have 14 students from the first course performing the masters' dissertation in the areas of archetypes, data clinical models, technological literacy of population groups and NIS assessment.

In the scope of this Master Course were developed several conferences, including:

Seminar "development of information systems", with the presence of Professor William Goossen, from Holland, in February, 2012, with the themes: "Data definitions: detailed clinical modeling / archetyping, templating" and "Workflow / UML process modeling / EHR architectures"

Seminar "Development of information systems in nursing" with the presence of Professor Heimar Marin, from Brazil, in April, 2012, with the theme: "eHealth and Nursing".

We are now beginning the second edition of the Course, with new 17 students from different geographic areas of Portugal.

GOAL 5

To contribute for the national and international communication and dissemination of ICNP® based programs.

Regarding the cooperation with other ICNP® Centres, we were invited to the II Conference on Electronic Medical Specification – interoperability and implementation, organized by the Centre for Health Information Systems in Warsaw, in July, the 2-3rd of July of 2012, where Paulino Sousa presented a conference: "The nursing data model – lessons learned from the usage of ICNP® in clinical practice. As result of this contribution, our centre established a transnational cooperation in the Human Capital Operational Programme, with Szczecinska Izba Pielegniarek i Poloznych, regarding the pilotage implementation of ICNP® in hospitals of West Pomeranian Province - Poland.

Regarding the dissemination of the research and development of ICNP® based investigation, Catalogues and development of NIS and e-nursing platforms, CIDESI, throughout its members held the following presentations and publications:

• Oliveira, Manuel Fernando dos Santos; Joana Alves Campos; José Miguel Castro Santos Padilha; Filipe Miguel Soares Pereira; Paulino Artur Ferreira Sousa. Exploring the family caregiving phenomenon in nursing documentation. Online Journal of Nursing Informatics, v. 15, n. 1, p. 1-11, 2011.

• Oliveira, Manuel Fernando dos Santos; Paulino Artur Ferreira Sousa. Integrating a CDSS in the NIS to improve the quality of care? An experience. Eight European Conference of ACENDIO. Portugal. 2011.

• Padilha, José Miguel dos Santos Castro; Paulino Artur Ferreira Sousa; Filipe Miguel Soares Pereira. Participatory action research: A strategy for improving self-management in COPD patients. Action research (approved for publication).2013.

• Padilha, José Miguel dos Santos Castro; Paulino Artur Ferreira Sousa; Filipe Miguel Soares Pereira. Promotion of self-care management of patients with COPD. In: 9th international biennial conference of ACENDIO - ehealth and nursing: innovating for the future, 2013. Dublin. ACENDIO - Ehealth and nursing: innovating for the future, conference proceedings. 2013, v. 10, p. 205-210.

• José Miguel dos Santos Castro Padilha; Paulino Artur Ferreira Sousa; Filipe Miguel Soares Pereira. Definition of a profile of literacy, technology literacy, availability and acceptance of technology in clients with COPD, a key factor in the selection of didactic resources for the promotion of self. E-health. How can e-health promote patient safety. In: ACENDIO, 2011. Funchal.

• Padilha, José Miguel dos Santos Castro; Paulino Artur Ferreira Sousa; Filipe Miguel Soares Pereira. Análise do uso de suportes tecnológicos e conteúdos informacionais pelos pacientes com doença pulmonar obstrutiva crónica. Revista Acta Paulista, v. 25 (1), n. 7. 2012, p.60-66.

• José Miguel dos Santos Castro Padilha; Paulino Artur Ferreira Sousa; Filipe Miguel Soares Pereira. Potencial para a utilização das TIC na promoção da gestão do regime terapêutico. III Congresso de Investigação em Enfermagem Ibero-Americano e de Países de Língua Oficial Portuguesa. Portugal. 2012. (Oral Presentation)

• José Miguel dos Santos Castro Padilha; Paulino Artur Ferreira Sousa; Filipe Miguel Soares Pereira. Terapêuticas de Enfermagem para a promoção da gestão do regime terapêutico em clientes com DPOC, análise de uma realidade. V Seminário de Investigação em Enfermagem, I Seminário Internacional de Investigação em Saúde. Portugal. 2011. (Oral Presentation)

• Padilha, José Miguel dos Santos Castro. O impacte da DPOC nas atividades de autocuidado do cliente com DPOC. Congresso Internacional de Enfermagem de Reabilitação. Portugal. 2012. (Oral Presentation)

• Padilha, José Miguel dos Santos Castro; Paulino Artur Ferreira Sousa; Filipe Miguel Soares Pereira. A mudança num contexto hospitalar para ajudar os clientes com DPOC a vivenciar transições saúde doença saudáveis. VII Encontro Luso-Brasileiro de Enfermagem "Saúde, Espiritualidade e qualidade de vida". Portugal. 2012. (Oral Presentation)

• José Miguel dos Santos Castro Padilha; Paulino Artur Ferreira Sousa; Filipe Miguel Soares Pereira. Fatores que influenciam a gestão do regime terapêutico em clientes com DPOC. III Congresso de Investigação em Enfermagem Ibero-Americano e de Países de Língua Oficial Portuguesa. Portugal. 2012. (Oral Presentation)

• José Miguel dos Santos Castro Padilha; Paulino Artur Ferreira Sousa; Filipe Miguel Soares Pereira. Potencial para a utilização das TIC na promoção da gestão do regime terapêutico. III Congresso de Investigação em Enfermagem Ibero-Americano e de Países de Língua Oficial Portuguesa. Portugal. 2012. (Oral Presentation)

• José Miguel dos Santos Castro Padilha; Paulino Artur Ferreira Sousa; Filipe Miguel Soares Pereira. Promoção da gestão do regime terapêutico em clientes com DPOC, um consenso clínico. VI Seminário Internacional de Investigação em Enfermagem. Portugal. 2012. (Oral Presentation)

• José Miguel dos Santos Castro Padilha. Promoção da gestão do regime

terapêutico em doentes com DPOC, a perspetiva da investigação. 2º Congresso de Enfermagem do Centro Hospitalar do Porto. Portugal. 2011. (Oral Presentation)

• Sousa, Paulino Artur Ferreira de. Sistemas de Informação e profissionais de saúde - visão dos enfermeiros. Manuel Robalo. Sistemas de Informação na Saúde: Perspetivas e Desafios em Portugal. 1ªed. Lisboa: EDições Sílabo, Lda., 2011, v. 1, p. 225-242.

• Sousa, Paulino Artur Ferreira de; Fonseca, Bruno. Nursing interventions to promote dignified dying in Portugal. In: 9th International Biennial Conference Of ACENDIO - Ehealth And Nursing: Innovating For The Future, 2013. Dublin. ACENDIO - Ehealth and nursing: innovating for the future, conference proceedings. Dublin, Ireland.: Association for Common European Nursing Diagnoses, Interventions and Outcomes, 2013, v. 7, p. 148-154.

• Sousa, Paulino Artur Ferreira de; Fonseca, Bruno. Dignified dying as a nursing phenomenon in Portugal. In: 9th International Biennial Conference Of ACENDIO - Ehealth And Nursing: Innovating For The Future, 2013. Dublin. ACENDIO - Ehealth and nursing: innovating for the future, conference proceedings. Dublin, Ireland.: Association for Common European Nursing Diagnoses, Interventions and Outcomes, 2013, v. 3, p. 58-63.

• Sousa, Paulino Artur Ferreira de; Oliveira, Manuel Fernando dos Santos. Evaluation of a Nursing Clinical Information System Implementation. In: 9th International Biennial Conference Of ACENDIO - Ehealth And Nursing: Innovating For The Future, 2013. Dublin. ACENDIO - Ehealth and nursing: innovating for the future, conference proceedings. Dublin, Ireland: Association for Common European Nursing Diagnoses, Interventions and Outcomes, 2013, v. 14, p. 300 311.

ACENDIO invited our participation in a Workshop on eHealth: Supporting the Use of Standardized Languages as Content Standards in Nursing, performed in June, the 5-6th of 2012 in Reykjavik, Iceland. In this conference were presented two conferences by Abel Silva: "The Portuguese nursing data model using ICNP® – lessons learned from more than ten years of utilization in clinical practice" and "The permanent question: To what extent can nursing be documented?"

We participated in the 9th Biennial Conference of ACENDIO, held in Ireland, in March, 2013, also with the presentations: "Evaluation of a Nursing Clinical Information System Implementation"; "Dignified dying as a nursing phenomenon in Portugal"; "Nursing interventions to promote dignified dying in Portugal".

The participation and attendance in the ICNP® Centres Consortium meetings at Malta (2011) and Melbourne (2013), was provided by ESEP, as projected.

In Melbourne we also presented/participated in: "The balance between the level of nursing care description using ICNP® and the time spent on documentation"; International Classification for Nursing Practice (ICNP®) Briefing Workshop: Evidence-based nursing practice in an interdisciplinary health care environment; "Nursing clinical decision support system: a strategy to improve the quality of nursing care".

The Portuguese (PT-PT) translation of the official versions of ICNP® v2.0, performed by the Ordem dos Enfermeiros (NNA), has been formally supported by ESEP, in 2011, and presented in January, 2012.

By invitation of the Ordem dos Enfermeiros, Abel Silva and Paulino Sousa were at the meeting "Nursing, information systems and health financing: ICNP® and experiences of effective use", held in January, 2012, integrating the Panel: "ICNP® 2011 – Perspectives of development in Portugal and in the world".

In the project "National and international communication and dissemination of ICNP®", we continue our participation in the translation of ICNP® to Portuguese (PT) and provide support in the area of NIS to the Clinical Computerization Committee of the Portuguese Ministry of Health.

We participated also in the jury of the International Advertising Competition for the "system of support for primary health care" (ACSS/Ministry of health), in the co-ordination of the work group to the nursing records of the Committee on Clinic Computerization (Ministry of health) and in the consultancy for nursing information systems in the Local Health Unit of Matosinhos and the Porto Hospital Centre and nursing information systems shared services of the Ministry of health.

Our application to the Fund for Bilateral Relations Nationwide of the European Union was accepted, allowing us to perform a partnership between ESEP and Cappelen Damm Akademisk (Norway), to develop platforms of support to the clinical practice of nursing.

In the last two years we were visited by several entities interested in our projects, namely: Takamatsu Goyatá and Lopes Chaves from nursing school of Universidade Federal de Alfenas, Minas Gerais, Brazil; Richard Madden, Professor of Health Statistics and Director of the National Centre for Classification in Health from the University Of Sydney, Australia; Sylvie Jette, professor at École des sciences infirmières, Université de Sherbrooke, Québec, Canada.

PERSPECTIVES ON 2014-2018 GOALS AND OBJECTIVES

Along with the goals and objectives still ongoing, we are now performing a nationwide review of nursing documentation data in the Portuguese health electronic records provided by the SAPE (an Information System for Supporting Nursing Documentation) conceived by ESEP researchers, using ICNP® v.ß2 and widely applied in Portuguese Hospitals and Health Centres by government authorities, towards its adequacy to the nursing care quality patterns and ICNP® v2.0 introduction.

In 2012, we began a new research long-term project centered on the development of archetypes in nursing domain. This project is related with the development of nursing information system using ICNP®. In our opinion, this new approach in health informatics will determine a middleware outlining to manage archetypes between ontologies and templates to support nursing information systems development.

In May of 2014 we will organize, in partnership with the Local Health Unit of Matosinhos, the International Congress on Health Information in Porto, Portugal, with the main topics: Trends on health informatics; Quality of health information; Knowledge representation, ontologies and language; the use of archetypes in health informatics; Electronic health records; E-health.

CIDESI is a nuclear activity of the Nursing School of Porto, and as such will report to the President of the School and be resourced accordingly, with institutional support.

The research and development inherent to the goals will be resourced by investigators work time as part of the research activities of the Investigation Unit of the School.

ICNP® Consortium attendance resources will continue to be provided by ESEP, who will sponsor staff to attend national and international meetings.

Since 2001, ESEP has been actively collaborating with Ordem dos Enfermeiros (NNA), in the ICNP® dissemination effort. Issues about Nursing Information Systems are also part of this wide partnership scope.

IN CONCLUSION

We humbly think that the CIDESI Centre demonstrates support of ICN's mission and the vision, outcomes and objectives of the ICN eHealth Programme and capacity to continually achieve its goals.

On the other hand, we are deeply committed on research, development, dissemination and evaluation of the nursing care delivery, applying ICNP®, and at the same time contributing to serve as a resource for ICNP® and eHealth continuous development.

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