

The Network for Nursing in Child Health

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The Network for Nursing in Child Health was launched in 2006 building on earlier collaboration of a group of nurses in Latin America to study the needs for strengthening pediatric nursing curricula in the region. This Network is one of more than 10 specialty nursing networks being developed with support from the Pan American Health Organization (PAHO) as a mechanism for promoting collaboration and communication between nurses of different countries to improve nursing practice and health care. The initial goals of the Network for Nursing in Child Health are to share knowledge and experience related to child health nursing and to promote incorporation of guidelines related to the Integrated Management of Childhood Illnesses (IMCI) in nursing curricula. At this time, membership in the Network is open to all nurses interested in working toward the Network's objectives, although communications are in Spanish. This collaborative network demonstrates the power of nursing working in a concerted way to build on its strengths and increase the capacity of nurses and health care workers to address global health priorities related to children's health care.

In today's global world it is critical to identify strategies to promote collaboration and communication between nurses of different countries, to share knowledge and experiences, and to improve professional nursing practice. The primary objective of this article is to describe the history and objectives of the Network for Nursing in Child Health (or Red de Enfermería en Salud Infantil, Red ENSI). This network is one of more than 10 specialty nursing networks that are being developed as an initiative of the Pan American Health Organization (PAHO) to promote collaboration and best practice in nursing across a variety of specialty areas (PAHO, 2007).

The initial group for Child Health Nursing and the Integrated Management of Childhood Illnesses (IMCI) project included nurses from Brazil, Chile, Colombia, and Argentina. The group held meetings in Washington and Sao Paulo to develop a work plan that included, among other activities, implementing a study about education related to child health nursing provided in Latin American nursing schools. In 2000, the PAHO authorized this study and asked the Latin American Association of Schools and Faculties of Nursing (ALADEFE) to assume responsibility for data collection. The ALADEFE Research Committee, which at this time was coordinated in Chile, initiated contact with all of the member nursing schools to obtain information about their education related to the care of children less than 5 years of age.

The results of this study provided an interesting overview of pediatric nursing education in Latin America, and indicated that the focus of most nursing schools was child health promotion and prevention of childhood illnesses. The findings suggested that there was a basic need to teach students a comprehensive system for evaluating and managing all of the common child health problems. The findings from this study were presented at the 9th Pan American Research Colloquium held in Lima, Peru in 2004, and were published in 2005 by PAHO and the World Health Organization (WHO) (Benguigui, Malvarez, & Obregon, 2005)

Because of the need for teaching students how to assess and manage common child health problems identified during the ALADEFE/PAHO study, plans were launched to develop a manual that outlines strategies for incorporating IMCI concepts in the curricula of nursing schools throughout the Americas. Although the initial version of the manual is in Spanish, members of the Network would like to see it translated into Portuguese, English, and French so that it could be used by nursing schools in the Caribbean, and in North America, South America, and Central America. Silvina Malvarez, the Regional Adviser of Development of Human Resources in Health, organized a meeting in 2003 to begin development of this manual. This meeting included nurses from Argentina, Brazil, Colombia, and Chile. Subsequent meetings were held in Brazil in 2004 and Peru and Nicaragua in 2006, and have included nurses with experience in child health from 10 different Latin American countries. The final version of the manual currently is being reviewed by the nurses who have been involved with its development, and it is anticipated that the final version will be published in the spring of 2008. It is noteworthy that the original

group of nurses who initiated the ALADEFE/ PAHO-supported study of child health nursing education, has continued to work together on the IMCI project, involving additional nurses from other countries as this project evolved.

In 2006, Dr. Malvarez recommended that the nurses who had worked on the ALADEFE survey and the IMCI manual expand their membership to form a Network for Nurses in Child Health, with collaboration from the WHO/PAHO Collaborating Center on International Nursing at the University of Alabama in Birmingham (UAB). A major focus of the work of the UAB Collaborating Center is to strengthen child and family health nursing in the region using web-based technology resources to enhance communication and dissemination of findings and outcomes of the collaborative Network.

The first meeting of the members of this expanded Network was held in Buenos Aires in November, 2006, in conjunction with the 10th Pan American Nursing Research Congress. This meeting included nurses from Argentina, Chile, Brazil, and the United States, and was organized by Dr. Gloria Montenegro of Argentina, who serves as the coordinator of the Network. During this meeting, participants shared ideas about the objectives and membership of the new Network, and developed plans for continued meetings using Internet-based audio chats supported and organized by UAB. Between November 2006 and September 2007, the initial members of the Network held numerous "virtual" meetings using web-based chat technology supported by the UAB Collaborating Center.

In October 2007, several members of the Network participated in an organizational meeting in Spain at the 9th Iberoamerican Conference on Nursing Education. This meeting involved members of more than 10 nursing networks being developed with support from PAHO, to discuss proposed guidelines and bylaws for the networks (PAHO, 2007). Following this organizational meeting, each network sponsored sessions that were open to all conference attendees to provide information about the focus of each network. A total of 20 nurses attended the meeting of the Network for Nursing in Child Health, including nurses from Argentina, Brazil, El Salvador, Nicaragua, Peru, Portugal, Spain, and the United States. An additional virtual meeting was held in November. At the present time, Network members are reviewing adaptations of the network guidelines proposed by PAHO and hope to formally approve the adapted guidelines in spring 2008.

The initial members of the Network have identified and reached consensus on four initial Network goals: (a) to share knowledge and experience related to child health nursing; (b) to promote use of the IMCI manual by nursing schools throughout Latin America; (c) to evaluate the effectiveness of the dissemination of the manual in promoting inclusion of IMCI content in nursing curricula throughout Latin America; and (d) to promote the translation of the IMCI manual to English, French, and Portuguese.

Membership in the Network is open to any nurse who wants to participate and to contribute to the objectives of the Network. At this time, to facilitate communication, the work of the Network will be conducted in Spanish. A Network coordinator will be identified for each country in the Iberoamerican region and from the United States, with input from Dr. Malvarez and other Network members. The coordinators will provide overall direction and coordinate Network projects and meetings.

As previously discussed, the development of the manual to promote incorporation of IMCI concepts in schools of nursing in Latin America was one of the first projects of the Child Health Nursing Network. This project continues as a major focus of the Network.

Every year, more than 11 million children under 5 years of age living in low resource countries die. About 70% of these deaths occur as the result of five preventable and treatable causes: pneumonia, diarrhea, malaria, measles, and malnutrition, or a combination of these problems. Many children are not adequately evaluated and treated because health workers focus their attention on the referred complaint, without evaluating other associated conditions that may contribute to increases in morbidity and mortality among young children. In addition, many health workers, due to a lack of knowledge, offer insufficient or incorrect information, or fail to provide adequate health education for the child and family (WHO, 1997; 2007).

To respond to these problems, in 1992 the WHO and the United Nations Children's Fund (UNICEF) developed the

IMCI strategy, which focuses on promoting holistic care in health services, homes, and in the community. The goal of the IMCI program is to improve growth and development of children under 5 years of age, and to reduce childhood morbidity and mortality (WHO, 1997; 2007). More than 80 countries have incorporated IMCI guidelines into their health systems.

Although the guidelines were developed for use in low-resource countries, the IMCI principles can help pediatric nurses throughout the world enhance the quality of child health care. Using IMCI guidelines can help health workers conduct comprehensive and holistic assessments of children, focusing not only on their presenting problems but on other potential causes of childhood morbidity and mortality, to ensure that the opportunity to make appropriate referrals or address other contributing health problems is not lost. The strategy also includes recommendations for prioritizing the problems and making referrals or providing treatment and care as appropriate. The classification distinguishes children with life-threatening problems who require urgent attention, referral, or hospitalization; those who present with problems that can be managed in the home with medicines and appropriate recommendations; and those who present without clinical signs of disease who need health education to promote health or prevent subsequent health problems. Because the IMCI classification system does not involve specific medical diagnoses, it can be used by nurses and other health care workers with appropriate educational preparation. These recommendations include specific actions for the treatment of the health problem (e.g., providing medications, feeding or activity guidelines); guidelines for follow-up; and general health promotion guidelines including immunizations, breast feeding, and promotion of healthy cognitive, social, and emotional development. Results from numerous studies have indicated that incorporation of IMCI guidelines in health services can improve the quality of health care provided to young children and their families (WHO, 2007).

lists the steps included in the IMCI Guidelines for managing sick children from the age of 2 months to 5 years. presents sample guidelines for assessment and management of a child who presents with a cough or difficulty breathing, which are the signs asked to evaluate the possibility of pneumonia. There also is a guideline for assessing, classifying, and treating children less than 2 months of age. Further details about the guidelines can be found at http://www.who.int/child-adolescent-health/New_Publications/IMCI/Chartbooklet.pdf.

Steps in Using the IMCI Guidelines to Assess and Treat a Sick Child Age 2 Months to 5 Years

Medscape® www.medscape.com	
<ol style="list-style-type: none">1. Assess, Classify, and Identify Treatment.<ul style="list-style-type: none">▪ Check for general danger signs.▪ Ask about main symptoms (cough, difficult breathing, diarrhea, fever, ear problem).▪ Check for malnutrition and anemia.▪ Check child's immunization status.▪ Assess for other problems.2. Treat the Child.<ul style="list-style-type: none">▪ Teach the mother to give oral drugs at home.▪ Teach the mother to treat local infections at home.▪ Give treatments in clinic (intramuscular antibiotic, quinine for severe malaria, prevent low blood sugar, give extra fluids for diarrhea).3. Immunize Every Child as Needed.4. Give Follow-up Care.5. Counsel the Mother (Nutrition/Feeding, Fluids, When to Return, Mother's Own Health).	
Note: Adapted from World Health Organization, Division of Child Health and Development, & UNICEF, 2006.	
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Sample IMCI Guidelines for Classifying and Treating a Child with Cough or Difficult Breathing

Medscape® www.medscape.com		
Signs	Classify As	Treatment
Any general danger sign, chest drawing in, or stridor in calm child	Severe pneumonia or very severe disease	Give first dose of appropriate antibiotic and refer URGENTLY to hospital.
Fast breathing (more than 50 per minute age 2-12 months; more than 40 breaths per minute 1-5 years)	Pneumonia	Give appropriate antibiotic for 5 days; Soothe throat and relieve cough with a safe remedy; Advise mother when to return immediately.
No signs of pneumonia or severe disease	No pneumonia, cough or cold	If coughing more than 30 days, refer for assessment; Soothe the throat and relieve the cough with a safe remedy; Advise mother when to return immediately; Follow-up in 5 days if not improving.
Note: Adapted from World Health Organization, Division of Child Health and Development, & UNICEF, 2006.		
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An initial goal of the Network for Child Health Nursing is promoting the incorporation of IMCI guidelines in basic nursing educational programs throughout the Americas. Because a number of nursing schools in the region have already incorporated IMCI guidelines into their curricula, the experiences of these programs can provide important lessons for others. In this section we describe the experiences of two nursing schools (one in Chile and one in Brazil), that can serve as models for other schools as they identify strategies for teaching IMCI guidelines to nursing students.

The experiences of the School of Nursing at the Catholic University of Maule in Chile were reported in the publication presenting the results of the ALDADEF/PAHO study of nursing education related to child health in the Americas described previously (Benguigui et al., 2005). IMCI guidelines have been presented at numerous conferences and professional meetings held in Chile to sensitize nursing faculty who work in community, family, or maternal-child health, about the importance of the IMCI strategy in reducing childhood morbidity and mortality. Faculty members at the Catholic University of Maule have designed learning opportunities to help undergraduate students apply IMCI guidelines to address the major child health problems in Chile, through home-based clinical experiences in the community. Because there are no longer significant child health problems in Chile related to malnutrition, poor hygiene, diarrhea, and low immunization rates, students focus on the more pressing health problems facing Chilean children: respiratory problems and problems related to psychomotor development, obesity, violence, and child abuse. Students select one of these problems as a focus, and follow children in home visits to provide holistic care to the child and family, based on the strategies and recommendations outlined in the IMCI approach.

The School of Nursing at the University of Sao Paulo in Brazil (USP) first began incorporating the IMCI strategy in the undergraduate program in 1997, after training faculty in the area of child health to use these guidelines. The IMCI guidelines were integrated into the basic child health nursing curriculum. Students learn basic concepts of child health promotion and management of common childhood illnesses, incorporating the strategies outlined in the IMCI program. The classroom instruction incorporates use of IMCI training modules and recommended readings, which are available online from the website of the Brazil Ministry of Health. In addition, USP nursing faculty have developed a video that includes guidelines for educating parents and others who care for children about care of children with acute respiratory illnesses and a CD-ROM that presents IMCI guidelines related to management of acute respiratory illness, signs of illness, management of fever, and assessment of growth and development (Chiesa et al., 2002). Faculty members also have developed laboratory simulation activities to teach students holistic child assessment skills (including physical, psychosocial, nutritional, and environmental assessment). Students incorporate the IMCI guidelines in their clinical experiences in primary care services,

schools, hospitals, day care centers, and other community settings.

In Brazil, the most common child health problems include respiratory diseases and nutritional disturbances, such as gaining insufficient weight, anemia, or obesity (Batista & Rissin, 2003; Brazil, 2004). Students consider these common problems whenever they evaluate children, in initial visits as well as follow-up visits, consistent with the IMCI guidelines. Faculty use the IMCI guidelines as a strategy to organize student learning in child health nursing, and students use the principles to identify which children need immediate attention and to develop plans for intervention and family health education. Incorporating these guidelines into the basic nursing curriculum provides excellent preparation for nursing care in primary settings. The discussion of communication strategies in IMCI helps students to develop skills in listening and identification of needs for health education and intervention in collaboration and consistent with family priorities and needs.

Students apply IMCI guidelines in the community, making home visits to families with newborn children and others with priority needs. During these home visits, students can observe family relationships and parent-child interactions, family strengths, and needs for nursing care or health education. Students use the IMCI assessment guidelines in the home to evaluate the child and family. These home visits provide an opportunity to promote breast feeding, discuss health protecting strategies, and teach families about signs of the most common child health problems. In this way, students provide comprehensive nursing care and promote the optimal health and potential of each child and family (Chiesa, 2005).

IMCI guidelines also are incorporated in student clinical experiences in hospitals as they learn to identify and classify the signs of the most common acute care illnesses in children. In addition, the IMCI strategy also is a resource for education of professionals who work in early childhood educational and day care settings. USP faculty and students have incorporated these principles in working as team members in these settings, developing protocols for management of common childhood illnesses, particularly acute respiratory infections (Verissimo, Sigaud, & Rezende, 2007).

In a recent study abroad course offered by UAB nursing faculty, 10 UAB students and 2 faculty members traveled to Honduras to learn first-hand about the application of IMCI guidelines in clinical practice and to identify ways in which these guidelines might be transferred to clinical settings in the United States. Honduras has one of the highest rates of childhood illness and mortality in Central America, and developing collaborative projects to improve child health in Honduras is a priority of the UAB World Health Organization Collaborating Center on International Nursing. Prior to traveling to Honduras, students studied the major health problems in the country and prepared health education or other projects that they would implement during an 8-day visit to the country. While in Honduras, students worked with Honduran nurses and physicians and observed their use of the IMCI guidelines in public health centers and community settings. They developed an appreciation for the strengths of the Honduran nurses and physicians, and learned important lessons about using community-based, participatory, and interdisciplinary approaches to health care. The lessons learned from this experience have informed UAB faculty and students about the real-life global child health problems in Central America. This learning is transferable to the community and pediatric clinical experiences of UAB nursing students, as Latino child health problems are also becoming endemic to Alabama with the influx of young Hispanic families as the fastest growing ethnic minority in the state.

The collaborative network has led to several preliminary outcomes centered on improving child health nursing. Among these are:

- Increased communication focused on improving child health among child health nursing experts from different countries in the Americas, Spain, and Portugal;
- Promotion of the use of IMCI guidelines to guide strategic clinical nursing interventions used by nurses and nursing students;

- Translation of evidenced-based protocols to guide nurses, nursing students, and other health care workers as they design clinical interventions for child health problems;
- Promotion of student and faculty exchanges aimed at improving children's health throughout the region;
- Dissemination of the work of the Network through collaborative publications and presentations, such as the collaborative presentation by Network members at the October 2007 Ninth Iberoamerican Conference on Nursing Education in Toledo, Spain;
- Expansion of the knowledge work of nursing, including standardized nursing curriculum and interventions; and
- Development of a model for use of web-based communication technologies that can be used by other global nursing networks focused on a variety of high risk global health problems.

Outcomes of this collaborative network will be monitored as the Network continues to grow and develop. Most importantly this network promotes a global nursing strategy to build nursing capacity and improve children's health. This collaborative nursing network is a demonstration of the power of nursing working in a concerted way to build on its strength and increase the capacity of nurses and health care workers to impact children's health care – a world wide health problem.

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