

# Advanced Practice Nursing in Pediatric Urology: experience report in the Federal District

Prática Avançada de Enfermagem em Uropediatria: relato de experiência no Distrito Federal Práctica de Enfermería Avanzada en Uropediatría: relato de experiencia en el Distrito Federal

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## **ABSTRACT**

**Objective:** To describe the creation and implementation of the extension program *Advanced Practice Nursing in Pediatric Urology*, developed in the outpatient clinic of a teaching hospital in the Federal District. **Method:** This is an experience report regarding the implementation of an outpatient service aimed at children and adolescents with symptoms of bladder and bowel dysfunction. **Results:** Because it is an extension program linked to the university, it follows a different model of care, valuing empowerment, informed and shared decision making, which results in a stronger bond between patients, family and the Pediatric Urology nursing team. It has also become a privileged space for the production and use of scientific knowledge, associated with the principles of evidence-based practice. **Conclusion:** This project shows a different performance of the nurse-specialist-professor-researcher in Pediatric Urology Nursing, and it has become a reference in the Federal District, mainly for undergraduate and graduate nursing students.

Descriptors: Advanced Practice Nursing; Urology; Pediatrics; Outpatient Clinics, Hospital; Students, Nursing.

#### **RESUMO**

**Objetivo:** Relatar a criação e implementação do projeto de extensão, intitulado *Prática Avançada de Enfermagem em Uropediatria*, desenvolvido no ambulatório de um hospital de ensino do Distrito Federal. **Método:** Trata-se de um relato de experiência sobre a implantação de um serviço ambulatorial direcionado a crianças e adolescentes portadores de sintomas de disfunção vesical e intestinal. **Resultados:** Por se tratar de um projeto de extensão vinculado à universidade, segue um modelo diferenciado de atendimento, que valoriza empoderamento e tomada de decisão informada e compartilhada, resultando no fortalecimento do vínculo entre pacientes, família e equipe de enfermagem de Uropediatria. Também se tornou um espaço privilegiado para produção e aplicação de conhecimentos científicos, articulado ao referencial da prática baseada em evidências. **Conclusão:** Este projeto mostra uma atuação diferenciada do enfermeiro-especialista-pesquisador-docente, na área de Enfermagem em Uropediatria, e vem se tornando referência no Distrito Federal, principalmente para alunos de graduação e pós-graduação em Enfermagem.

Descritores: Prática Avançada de Enfermagem; Urologia; Pediatria; Ambulatório Hospitalar; Estudantes de Enfermagem.

## **RESUMEN**

**Objetivo:** Relatar sobre la creación e implantación del proyecto de extensión, titulado *Práctica de Enfermería Avanzada en Uropediatría*, desarrollado en el ambulatorio de un hospital de enseñanza del Distrito Federal. **Método:** Se trata de un relato de experiencia sobre la implantación de un servicio ambulatorio dirigido a niños y adolescentes portadores de síntomas de disfunción vesical e intestinal. **Resultados:** Por tratarse de un proyecto de extensión vinculado a la universidad, sigue un modelo diferenciado de atención que valora el empoderamiento y la toma de decisión informada y compartida, lo que fortalece el vínculo entre paciente, familia y equipo de enfermería de Uropediatría. Se ha vuelto, en consecuencia, un espacio privilegiado para la producción y aplicación de conocimientos científicos, articulado al referencial de la práctica basada en evidencias. **Conclusión:** Este proyecto demuestra una actuación diferenciada del enfermero-especialista-investigador-docente en el área de Enfermería en Uropediatría, y está siendo visto como referencia en el Distrito Federal, principalmente para alumnos de graduación y posgrado de Enfermería.

Descriptores: Práctica Avanzada de Enfermería; Urología; Pediatría; Ambulatorio Hospitalario; Estudiantes de Enfermería.

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## **INTRODUCTION**

Advanced Practice Nursing (APN) is a determining, effective and autonomous specialized care model, in which the nurse acquires new roles and competencies responding to social and political changes in the health services and in the needs of the population. This model requires from the nurse an in-depth knowledge in a specific area, which is usually obtained through a specialization course, followed by a master's degree. By definition, an Advanced Practice Nurse "has acquired the expert knowledge base, complex decision-making skills and clinical competencies for expanded practice" (1-2).

This denomination and qualification have already been used in the International Council of Nurses and it has been recognized and regulated for decades in North America, Europe and Australia. However, due to the lack of a legal mechanism to regulate the APN, this is not yet a reality in Latin America. But this scenario is expected to change, since in 2013 the Pan American Health Organization (PAHO) published a resolution that encourages the promotion of reforms in the health care area, especially in Primary Health Care (PHC), including advanced practice nursing<sup>(3)</sup>.

The resolution CD 52.R13 mentioned above aims to promote reforms in health professions' education to support PHC-based on health systems and increase the number of seats in training programs for advanced practice nurses<sup>(3)</sup>. Investments in the improvement of APN have been pointed out as a possible solution for underserved areas which are distant or difficult to reach and have suffered from the lack of services and health professionals<sup>(1-3)</sup>. Thus, Brazil is believed to be at the forefront and it can be one of the Latin American pioneers in implementing APN, since Brazil's health system is already based on universal coverage and access to health.

Considering that both the specialty of Pediatric Urology Nursing and APN are relatively recent in Brazil, specialized and qualified nursing care in Pediatric Urology is being delivered by pediatric or ostomy nurses collaborating in multiprofessional teams with an interdisciplinary approach.

Professionals with expertise in Pediatric Urology, regardless of their training, have worked mainly on the promotion of pediatric urinary continence. Due to the variety of problems related to the dynamics of urinary storage and voiding, nurses working in Pediatric Urology can assist children with severe urogenital malformations, who require several surgical interventions to stabilize their urological condition. In addition, nurses' practice in the clinical management of children and adolescents with bladder and bowel dysfunctions - such as daytime or nighttime urinary incontinence (enuresis), intestinal constipation, encopresis, and urinary retention – is mainly based on behavioral interventions such as bladder control training and changes in the habits and lifestyle of the child and family, sometimes including training for complex techniques such as clean intermittent catheterization<sup>(4-5)</sup>.

Despite the current lack of legal regulation in the country, Dias et al.<sup>(6)</sup> report the experience of a pediatric oncology service in São Paulo, based on an American model of Clinical Nurse Specialist. The care provided in this service is based on

four essential pillars: qualified assistance, education/coaching (patient, family, professionals), research and management. Therefore, Pediatric Urology Nursing can also be seen as a specialty that fits very well in the APN model, mainly because most urological interventions are based on child and family-centered care and aligned with PHC principles<sup>(4)</sup>.

Thus, this article aims to describe the creation and implementation of the extension program called: *Advanced Practice Nursing in Pediatric Urology*, linked to the Nursing Department of the University of Brasília.

## **METHOD**

This is an experience report regarding the creation and implementation of the extension program Advanced Practice Nursing in Pediatric Urology, developed in the outpatient clinic of the University Hospital of Brasilia (HUB).

## **RESULTS**

For a better understanding, this study describes the context in which the project was constructed and the experience of the participants action.

## Construction of the program

Although its official recognition as an extension project at the University of Brasilia only took place in April 2013, the project started in 2010, when Nursing Professor Gisele Martins (here referred to as GM) joined the Nursing Department of the University of Brasilia (UnB). In the beginning, the professor was in collaboration with the Nephrology and Pediatric Surgery medical teams of the HUB. During this period, she participated in the outpatient and inpatient activities related to the Nephrology and Pediatric Surgery services, coming to be recognized as a professional with expertise in interdisciplinary management of complex cases, especially regarding the preparation and training of the child/adolescent and family for the clean intermittent catheterization (CIC).

Over time, the demands increased in quantitative terms and adding new roles and competencies for an expert in Pediatric Urology nursing, including technical opinions and interdisciplinary care actions with other members of the health team, such as psychologists, social workers and others. Therefore, this extension project was created to meet the demands of specialized nursing care for pediatric patients from the Federal District and from different regions of Brazil, when they are referred for care in the HUB.

As a response to the demands generated by the complexity of this area and the absence of a professional nurse with expertise in Pediatric Urology, professor GM began to disclose the assistance activities that she developed in the HUB to nursing students who were involved in practical and supervised activities in the Pediatric Nursing course subject. From that moment, some students expressed interest in contributing to this professor's fieldwork, especially two students. The first, now a Pediatric Nephrologist nurse and a nursing professor, Cristiane Feitosa Salviano (here referred to as CFS), began working with professor

GM and both formalized the creation of the extension program via dean's office at UnB. In addition to the assistance activities, they also worked in research activities linked to the Group for the Study of Child, Adolescent and Family Health (GESCAF). The second student, now a nurse aiming for a master's degree in Nursing, nurse Bruna Marcela Lima de Souza (here referred to as BMLS) also joined the team, working up to now as a volunteer nurse and preceptor/tutor of the project.

Within this brief historical context of this extension program creation, it is necessary to mention some characteristics of the academic and professional trajectory of the nurses who coordinate and act in this extension project. Professor GM got her undergraduate degree in Nursing in 2001 in the School of Medicine of São José do Rio Preto (FAMERP), completed a master's degree in 2004 and a doctor's degree in 2009, both by FAMERP in Health Sciences, in the specific area of Maternal and Child Urology. Her PhD included a sandwich doctorate scholarship in 2008 at the Faculty of Nursing, University of Alberta, Canada, aimed at strengthening her expertise in this area of knowledge, which was still incipient in Brazil. In 2014, she still felt the need to update and expand her knowledge and went abroad again, now to pursue her Pos-Doc in Pediatric Urology, in the Urology Division of the Hospital for Sick Children (Sick Kids) affiliated to the Faculty of Medicine, University of Toronto, Canada. She can be considered the mentor and founder of this extension program. CFS completed her undergraduate course at the University of Brasília (UnB) in 2011 and a master's degree in nursing at UnB in 2014, in the area of Caring Process in Health and Nursing. Her line of research was Advanced Nursing Practice in Pediatric Urology. She became a nurse with expertise in Nephrology and Urology at Israelita Albert Einstein Hospital in 2015. Along with professor GM, she was a founding member of this project. BMLS completed her undergraduate course in Nursing at UnB in 2015. In 2013 she joined the Advanced Practice Nursing in Pediatric Urology program as an extension student. In the same year, she started a scientific initiation project in this area, which has already been published<sup>(7)</sup>. Due to her experience in the project and her interest in research activities, in her Final Undergraduation Work Project she developed a field research in the area of Pediatric Urology. After graduation, she decided to stay in the project and now she is a member of the team of nurses in the Advanced Practice Nursing in Pediatric Urology, where she sees patients, coordinates and mentors the new members of the program.

The project counts with the specific training and expertise of the nurses and coordinators and has an institutional link to the university. Its primary objective is to provide excellent (advanced and evidence-based) nursing care for the pediatric population suffering from lower urinary tract symptoms (LUTS) and bladder and bowel dysfunction (BBD), addressing education, health care and rehabilitation. Considering that it is an extension project, which receives nursing students and nurses interested in learning or having an initial contact with the specialty of Pediatric Urology Nursing, it has become a privileged environment for knowledge exchange and practices within the technical, scientific and humanistic framework for future and current nursing professional training.

Therefore, the competencies for the practice of this service are based on the pillars of qualified assistance and on the triad "teaching (patients/family/students/professionals), extension and research". Thus, the team of nurses works equally in all aspects, exercising a unique role of nurse-specialist-professor-researcher in order to integrate research within clinical practice<sup>(8)</sup>.

Regarding the teaching aspect, it is believed that an effective pedagogical practice involves proactive student participation as a way of linking teaching with research and extension. Thus, with a teaching approach based on peer-mentoring and team-based learning principles, undergraduate nursing students at UnB have the opportunity to expand and develop cognitive, procedural and attitudinal skills for APN in the context of Pediatric Urology. There is also a journal club (held weekly) where students write and discuss texts reviews and scientific articles that bring scientific evidence related to the actions that are developed in the project. Also, at the beginning of each semester (in the meet & greet session for new members), a scientific and welcome meeting is carried out. At this meeting, a brief lecture/discussion is conducted with the purpose of synthesizing how they will act within the project and explaining basic definitions of APN in Pediatric Urology. The meeting is also an opportunity of socialization of newly arrived students (called junior students) with students who have been at the project for one or more semesters (called senior students). In the last year, the project counted with the participation of 12 students, 6 juniors and 6 seniors. A total of 25 nursing students and 2 trainee nurses have participated in the project during its years of activity.

In the research aspect, this project was able to develop a line of research linked to the Graduate Program in Nursing (PPGENF/UnB), conducting orientations for Scientific Initiation Projects, Final Undergraduate Projects, Master's Degree Thesis and Doctorate Dissertations addressing the care of the child/adolescent with urinary/intestinal symptoms and their family. Recently there were 1 international and 2 national publications of the studies that were carried out in this project.

Regarding the extension aspect, here understood as assistance to the internal and external community of the HUB/UnB, the service includes nursing consultations based on pedagogic strategies that seek to strengthen the understanding of the information provided in the consultation. Currently, the daily number of appointments has varied, but it is limited to an average of 6 appointments per morning, once a week, on Mondays. From 2013 to 2016, an average of 120 children and adolescents with BBD were seen and followed up by the service.

During the consultations, the principle of knowledge translation is applied to the pedagogical approach developed by the students' extension group (extension students group). Among the teaching actions developed are: educational booklets for children, adolescents and the family - regarding Constipation, Enuresis and Healthy Bladder Habits; support resources for the symptoms investigation- the Elimination Diary, the Enuresis Calendar, and the Dysfunctional Voiding Symptom Score (DVSS); materials to stimulate participation and therapeutic adherence of patients (such as illustrative brochures); and letters addressed to the schools, requesting their support during

the treatment of the child or adolescent that attends the outpatient clinic.

The booklets are systematically developed and updated by the extension students who participate in the service and in the research projects linked to this line of research. The construction of the booklets aims to use a language sensitive to the development stage of the pediatric patient, in order to facilitate the understanding and enhance adherence to the nursing interventions. Therefore, the content of the booklets – organized in brochures - aims to inform and demystify aspects related to the symptoms suffered by the child or adolescent, as well as to provide instructions on the habits of healthy eliminations such as: changing behaviors that are harmful to the bladder and intestine, adequate fluid intake, healthy eating habits, correct posture at toilet sitting, among others<sup>(9)</sup>.

Support resources are used to obtain a more accurate record of the patient's symptoms and bladder habits. The Elimination Diary, for example, requires the patient to measure, on the weekend (Saturday and Sunday) prior to the appointment, the amount of fluid intake, voided volume and specifications (if there was urgency or incontinence), bowel elimination and appearance of feces (according to the Bristol scale). The time is checked and recorded for each annotation. The Enuresis Calendar is intended to measure the episodes of nocturnal urination in a given period. Thus, the patient should record whether or not symptoms occurred in the period of days determined until the return to the outpatient clinic. Both instruments must be completed by the patient, with the assistance of a supervisor, if necessary. The Dysfunctional Voiding Symptom Score (DVSS) is applied by the nursing team in each patient's visit, in order to measure and compare the evolution of the patient's BBD symptoms<sup>(10)</sup>.

The illustrative materials used are: an instrument adapted from the Bristol Scale - used to record the type of feces of the patient; and brochures with pictures of foods that are considered as bladder irritants or not.

The documents that provide information to the schools about the treatment of the child or adolescent have been developed to help the communication with the school environment and increase the adherence to behavioral changes. Among these documents are: "Letter of Encouragement to use the toilet at school" and "Letter of Permission to use the toilet at school". The first letter serves as a reminder to the teacher and asks the teacher to encourage the child or adolescent to use the toilet more often at the school or daycare. The second one clarifies that the patient attends the service, and that it is advisable to allow the student to leave the classroom to use the toilet whenever he/she needs it. It is understood that the school context can influence the voiding and bowel behavior in a positive way, when it stimulates good bladder habits; and in a negative way, if it causes the child or adolescent to postpone their physiological eliminations<sup>(7,10)</sup>. Therefore, the use of these letters aims to include the social environment and to ensure the continuity of care by the patient and family.

# **Experiencing the extension program**

When the concept of APN is included in Pediatric Urology, it demonstrates the importance of the nurses' role and their

autonomy to propose clinical strategies for dealing with LUTS and BBD in the pediatric population. The practice of the pediatric nurse with expertise in Pediatric Urology is prominent in the multi-professional team, since they act as agents that enhance preventive and therapeutic actions. In addition, the AP nurse is the member of the health team capable of delivering a holistic care that meets the needs of the child/adolescent with LUTS and BBD, guiding the nursing assistance with a care perspective centered on the child and the family<sup>(4-5)</sup> and based on principles of advocacy.

The patients and their families acknowledge the work of the nurse, which is evidenced by verbal statements and affection and gratitude demonstrations for the outcomes achieved. The satisfaction and clinical improvement of symptoms are often assessed by the use of instruments (such as DVSS, Enuresis Calendar and Elimination Diary). This recognition occurs not only quantitatively; it can also be seen in actions such as asking for guidance and keeping informed and shared decisions about therapeutic options (such as combined or non-combined use of anticholinergic therapy with urologic interventions), resulting in a stronger bond between patients, family and the Pediatric Urology nursing team.

Regarding other professionals, their recognition towards the nursing team was and is being built, adding an expanded character to practice, involving shared responsibilities for the decisions about the care provided to the child/adolescent and their family. The multi-professional practice, based on sharing health care decisions, has made the performance of our APN team even more prominent and increased adherence in the urological management of the patient and family.

Therefore, the service has made progress in delivering an advanced evidence-based care, that is, above all, human, aimed at children and adolescents who suffer from STUI and BBD and need a qualified team capable of recognizing, managing and treating their demands in the different and multiple dimensions of health care.

# **FINAL CONSIDERATIONS**

This experience report provided a portrayal of a Brazilian example of an APN service in Pediatric Urology. Because it is an extension program linked to the UnB, this outpatient clinic follows a different model in the clinical visits, which makes it a reference for the assistance of this pediatric subspecialty in the Federal District.

The participation in the project includes a mixed experience of outpatient care (nursing consultations) and inpatient care (technical opinions and catheter training), as well as the opportunity to discuss cases with pediatric surgery and nephrology teams. In addition to the technical and scientific knowledge the area offers, nurses and nursing students learn health education skills and effective communication techniques for dealing with the child, adolescent and their family through nursing consultations. The learning experience includes technical skills (such as the clean intermittent catheterization technique), symptomology (general and focused physical examination) and active listening.

Despite the fact the project is within the area of a health care specialty, the extension students also experience intersectoral action, such as sending letters of encouragement and permission to use the toilet at the school, aiming to integrate the education professionals and allow the children to maintain healthy bladder habits in all their daily environment/spaces. In addition, the experience reported here suggests that APN can be an effective model not only for Pediatric Urology, but

also for other nursing specialties. This project applies the principles of evidence-based care built through critical, reflexive and humanistic thinking.

This extension program can also be considered a privileged space for undergraduate and graduate nursing students, since it shows a different performance of the nurse-specialist-professor-researcher, with emphasis in the area of Pediatric Urology Nursing.

#### **REFERENCES**

- 1. Lowe G, Plummer V, O'Brien AP, Boyd L. Time to clarify-the value of advanced practice nursing roles in health care. J Adv Nurs [Internet]. 2012 [cited 2016 Nov 8];68(3):677-85. Available from: https://www.ncbi.nlm.nih.gov/pubmed/21790738
- 2. Heale R, Rieck Buckley C. An international perspective of advanced practice nursing regulation. Int Nurs Rev [Internet]. 2015 [cited 2016 Dec 2];62(3):421-29. Available from: https://www.ncbi.nlm.nih.gov/pubmed/26058446
- 3. Cassiani SH, Zug KE. Promoting the Advanced Nursing Role in Latin America. Rev Bras Enferm [Internet]. 2014 [cited 2016 Nov 12];67(5):673-4. Available from: http://www.scielo.br/pdf/reben/v67n5/0034-7167-reben-67-05-0677.pdf
- 4. Crowe H. Advanced urology nursing practice. Nat Rev Urol [Internet]. 2014 [cited 2016 Dec 8];11(3):178-82. Available from: http://dx.doi.org/10.1038/nrurol.2014.16
- Allen P. Survey: Pediatric urology NPs may be able to take on more. Urol Times [Internet]. 2011[cited 2016 Out 20];39(4):53 Available from: http://urologytimes.modernmedicine.com/urology-times/news/modernmedicine/modern-medicine-news/survey-pediatric-urology-nurse-practitioners-?date = &id = &pageID = 2&sk =
- Dias CG, Duarte AM, Ibanez ASS, Rodrigues DB, Barros DP, Soares JS, et al. Clinical Nurse Specialist: a model of advanced nursing practice in pediatric oncology in Brazil. Rev Esc Enferm USP[Internet]. 2013 [cited 2016 Dec 6];47(6):1426-30. Available from: http://www.scielo.br/pdf/reeusp/v47n6/en 0080-6234-reeusp-47-6-01426.pdf
- Souza BML, Salviano CF, Martins G. The school context and lower urinary tract symptoms: an integrative literature review. Cogitare Enferm [Internet]. 2015 [cited 2016 Nov 4];20(1):198-206. Available from: http://revistas.ufpr.br/cogitare/article/view/37477/24875
- 8. Kleinpell RM, Faut-Callahan M, Carlson E, Llewellyn J, Dreher M. Evolving the practitioner-teacher role to enhance practice-academic partnerships: a literature review. J Clin Nurs [Internet]. 2016 [cited 2016 Dec 8];25(5-6):708-14. Available from: http://onlinelibrary-wiley-com.ez54.periodicos.capes.gov.br/doi/10.1111/jocn.13017/epdf
- Austin PF, Bauer SB, Bower W, Chase J, Franco I, Hoebeke P, et al. The standardization of terminology of Lower Urinary Tract Function in children and adolescents: update report from the standardization committee of the international children's continence society. J Urol[Internet]. 2014 [cited 2016 Nov 12];191(6):1863-65. Available from: https://linkinghub.elsevier.com/retrieve/pii/ S0022-5347(06)00305-3
- Martins G, Minuk J, Varghese A, Dave S, Williams K, Farhat WA. Non-biological determinants of paediatric bladder bowel dysfunction: a pilot study. J Pediatr Urol [Internet]. 2016 [cited 2016 Oct 4];12(2):109.e1-6. Available from: https://linkinghub. elsevier.com/retrieve/pii/S1477-5131(15)00369-1