Paediatric Nurse Education

Evidence Update

March 2018
(Quarterly)
Your Outreach Librarian – Helen Pullen

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**Training Calendar 2018**

*All sessions are one hour*

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<td>April (12.00-13.00)</td>
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Recent Database Articles

If you would like any of the articles in full text, or if you would like a more focused search on your own topic, please contact us: library@bristol.nhs.uk

1. Evaluation of students' knowledge about paediatric dosage calculations.
   **Author(s):** Özyazıcıoğlu, Nurcan; Aydın, Ayla İrem; Sürenler, Semra; Çinar, Hava Gökdere; Yılmaz, Dilek; Arkan, Burcu; Tunç, Gülseren Çıtak
   **Source:** Nurse Education in Practice; Jan 2018; vol. 28 ; p. 34-39
   **Publication Date:** Jan 2018
   **Publication Type(s):** Academic Journal
   **Abstract:** Medication errors are common and may jeopardize the patient safety. As paediatric dosages are calculated based on the child's age and weight, risk of error in dosage calculations is increasing. In paediatric patients, overdose drug prescribed regardless of the child's weight, age and clinical picture may lead to excessive toxicity and mortalities while low doses may delay the treatment. This study was carried out to evaluate the knowledge of nursing students about paediatric dosage calculations. This research, which is of retrospective type, covers a population
consisting of all the 3rd grade students at the bachelor’s degree in May, 2015 (148 students). Drug dose calculation questions in exam papers including 3 open ended questions on dosage calculation problems, addressing 5 variables were distributed to the students and their responses were evaluated by the researchers. In the evaluation of the data, figures and percentage distribution were calculated and Spearman correlation analysis was applied. Exam question on the dosage calculation based on child's age, which is the most common method in paediatrics, and which ensures right dosages and drug dilution was answered correctly by 87.1% of the students while 9.5% answered it wrong and 3.4% left it blank. 69.6% of the students was successful in finding the safe dose range, and 79.1% in finding the right ratio/proportion. 65.5% of the answers with regard to ml/dzy calculation were correct. Moreover, student's four operation skills were assessed and 68.2% of the students were determined to have found the correct answer. When the relation among the questions on medication was examined, a significant relation (correlation) was determined between them. It is seen that in dosage calculations, the students failed mostly in calculating ml/dzy (decimal). This result means that as dosage calculations are based on decimal values, calculations may be ten times erroneous when the decimal point is placed wrongly. Moreover, it is also seen that students lack maths knowledge in respect of four operations and calculating safe dose range. 

Relations among the medications suggest that a student wrongly calculating a dosage may also make other errors. Additional courses, exercises or utilisation of different teaching techniques may be suggested to eliminate the deficiencies in terms of basic maths knowledge, problem solving skills and correct dosage calculation of the students.

Database: CINAHL

2. The first 3 minutes: Optimising a short realistic paediatric team resuscitation training session.

Author(s): McKittrick, Joanne T.; Kinney, Sharon; Lima, Sally; Allen, Meredith

Source: Nurse Education in Practice; Jan 2018; vol. 28 ; p. 115-120

Publication Date: Jan 2018

Publication Type(s): Academic Journal

Abstract: Inadequate resuscitation leads to death or brain injury. Recent recommendations for resuscitation team training to complement knowledge and skills training highlighted the need for development of an effective team resuscitation training session. This study aimed to evaluate and revise an interprofessional team training session which addressed roles and performance during provision of paediatric resuscitation, through incorporation of real-time, real team simulated training episodes. This study was conducted applying the principles of action research. Two cycles of data collection, evaluation and refinement of a 30-40 minute resuscitation training session for doctors and nurses occurred. Doctors and nurses made up 4 groups of training session participants. Their responses to the training were evaluated through thematic analysis of rich qualitative data gathered in focus groups held immediately after each training session. Major themes included the importance of realism, teamwork, and reflective learning. Findings informed important training session changes. These included; committed in-situ training; team diversity; realistic resources; role flexibility, definition and leadership; increased debriefing time and the addition of a team goal. In conclusion, incorporation of interprofessional resuscitation training which addresses team roles and responsibilities into standard medical and nursing training will enhance preparedness for participation in paediatric resuscitation.

Database: CINAHL

3. Continuing Nursing Education. The Experience of Compassion In School-Age Siblings of Children With a Severe Traumatic Injury.
Author(s): Bugel, Mary Jo

Source: Pediatric Nursing; Jan 2018; vol. 44 (no. 1); p. 7-11

Publication Date: Jan 2018

Publication Type(s): Academic Journal

Available at Pediatric Nursing - from ProQuest (Hospital Premium Collection) - NHS Version
Available at Pediatric Nursing - from EBSCO (CINAHL with Full Text)

Abstract:
Although many school-age siblings have a brother or sister who experienced an acute and unforeseen traumatic injury resulting in devastating and long-ranging effects, little research has focused on understanding the well-sibling experience. The phenomenon of what it is like to be a school-age sibling living through this family crisis as it starts to unfold has essentially been unstudied. This study used the method of phenomenology to uncover principle themes inherent in the experience of well school-age siblings. Four main themes and three overarching metathemes emerged; however, the most prevalent and strongest theme uncovered was that of compassion. Findings describing compassion are illustrated through spoken words of siblings enmeshed in the experience. Feelings, thoughts, and ideas of these well school-age siblings were used to develop clinical recommendations, which are proposed to nurses and other health professionals who practice with siblings and families of children who have faced a traumatic injury.

Database: CINAHL


Author(s): AlReshidi, Nahar; Long, Tony; Darvill, Angela

Source: Comprehensive Child & Adolescent Nursing; Mar 2018; vol. 41 (no. 1); p. 9-24

Publication Date: Mar 2018

Publication Type(s): Academic Journal

Abstract:
Despite extensive research in the international arena into pain and its management, there is, as yet, little research on the topic of pain in children in Saudi Arabia and in the Gulf countries generally. A systematic review was conducted to explore the impact of education programs on factors affecting paediatric nurses’ postoperative pain management practice. This was done in order to advise the creation of an educational program for nurses in Saudi Arabia. Knowledge about pain, attitudes towards pain, beliefs about children’s pain, perceptions of children’s reports of pain, self-efficacy with regard to pain management, and perceptions of barriers to optimal practice were all considered to be relevant factors. The review was restricted to randomized controlled trials and quasi-experimental designs, excluding studies focussed on chronic pain or populations other than solely children. Studies published in English between 2000 and 2016 were identified using CINAHL, MEDLINE, Ovid SP, The Cochrane Library, ProQuest, and Google Scholar databases. Of 499 published studies identified by the search, 14 met the inclusion criteria and were included in the review. There was evidence of educational programs exerting a positive impact on enhancing pediatric nurses’ knowledge of pain and modifying their attitudes towards it, but only limited evidence was available about the impact on nurses’ beliefs and perceptions of children’s reports of pain, nurses’ self-efficacy, or barriers to optimal practice. None of the studies was conducted in Saudi Arabia. Studies were needed to address additional aspects of preparedness for effective postoperative pain management. Details of educational programs used as experimental intervention must be included in reports.

Database: CINAHL
5. Interprofessional Education on Adverse Childhood Experiences for Associate Degree Nursing Students.

**Author(s):** Olsen, Jeanette M.; Warring, Sarah L.

**Source:** Journal of Nursing Education; Feb 2018; vol. 57 (no. 2); p. 101-105

**Publication Date:** Feb 2018

**Publication Type(s):** Academic Journal

**Abstract:** Background: The health impact of adverse childhood experiences (ACEs) is significant. Nurses need knowledge and must work in multidisciplinary teams to address this problem. This study examined the effects of an interprofessional education (IPE) activity with nonhealth care students on associate degree nursing (ADN) students’ ACEs knowledge and perspectives on IPE.

Method: The mixed-methods approach used a quasi-experimental pretest–posttest design with an intervention and control group and thematic analysis of focus group data. Results: Readiness for Interprofessional Learning scale mean scores indicated positive baseline IPE perspectives. Scores changed minimally for most measures in both the intervention and control groups on posttest. However, four major relevant themes related to ACEs knowledge and two related to interprofessional learning were identified. Conclusion: IPE with nonhealth care students is an effective way to teach ADN students about ACEs and infuse interprofessional learning in a nonuniversity setting. However, outcomes are best captured with qualitative data.

**Database:** CINAHL

6. Providing Pediatric Palliative Care Education Using Problem-Based Learning.

**Author(s):** Moody, Karen; McHugh, Marlene; Baker, Rebecca; Cohen, Hillel; Pinto, Priya; Deutsch, Stephanie; Santizo, Ruth O.; Schechter, Miriam; Fausto, James; Joo, Pablo

**Source:** Journal of Palliative Medicine; Jan 2018; vol. 21 (no. 1); p. 22-27

**Publication Date:** Jan 2018

**Publication Type(s):** Academic Journal

**Abstract:** Background: The Institute of Medicine and the American Academy of Pediatrics has called for improvement in education and training of pediatricians in pediatric palliative care (PPC). Given the shortage of PPC physicians and the immediate need for PPC medical education, this study reports the outcomes of a problem-based learning (PBL) module facilitated by academic general and subspecialty pediatric faculty (non-PPC specialists) to third year medical students.

Objectives/Setting: To test the effectiveness of a PPC-PBL module on third year medical students' and pediatric faculty's declarative knowledge, attitudes toward, perceived exposure, and self-assessed competency in PPC objectives. Design: A PBL module was developed using three PPC learning objectives as a framework: define core concepts in palliative care; list the components of a total pain assessment; and describe key principles in establishing therapeutic relationships with patients. A PPC physician and nurse practitioner guided pediatric faculty on facilitating the PPC-PBL. In Part 1, students identified domains of palliative care for a child with refractory leukemia and self-assigned questions to research and present at the follow-up session. In Part 2, students were expected to develop a care plan demonstrating the three PPC objectives. Measurements: Measures included a knowledge exam and a survey instrument to assess secondary outcomes. Results: Students’ declarative knowledge, perceived exposure, and self-assessed competency in all three PPC learning objectives improved significantly after the PPC-PBL, p = 0.002, p < 0.001, and p 80%.

Students and faculty rated palliative care education as ‘important or very important’ at baseline and follow-up. Conclusions: This study suggests that key concepts in PPC can be taught to medical
students utilizing a PBL format and pediatric faculty resulting in improved knowledge and self-assessed competency in PPC.

**Database:** CINAHL

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- **April 11th:** Foyer, St Michael’s Hospital 12.00-14.00
- **May 2nd:** Canteen (Level 9, BRI) 12.00-14.00
- **June 6th:** Terrace (Level 4, Education Centre) 12.00-14.00
- **June 19th:** Welcome Centre, BRI 10.00-16.00
- **July 3rd:** Welcome Centre, BRI 10.00-16.00
- **July 4th:** Canteen (Level 9, BRI) 12.00-14.00
- **August 8th:** Foyer, Education Centre 12.00-14.00
- **August 29th:** Foyer, St Michael’s Hospital 12.00-14.00
- **September 5th:** Canteen (Level 9, BRI) 12.00-14.00
- **September 11th:** Welcome Centre, BRI 10.00-16.00
- **October 3rd:** Terrace (Level 4, Education Centre) 12.00-14.00
- **November 7th:** Canteen (Level 9, BRI) 12.00-14.00
- **December 5th:** Foyer, Education Centre 12.00-14.00
- **December 11th:** Welcome Centre, BRI 10.00-16.00
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