EDUCATION FOR CHILDREN’S ORTHOPAEDIC NURSES – AN INTERNATIONAL COMPARISON

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Aims

- Travel scholarship – comparison of post graduate children’s orthopaedic nurse education in United Kingdom and Australia.

- Why I chose to do the investigation.

- Discuss what constitutes children’s orthopaedic knowledge and skills.

- Outline my results

- Discuss the way forward
Florence Nightingale Foundation

- FNF is a memorial to Florence Nightingale.
- Established in 1929 after WW1
- Aim: for nurses
  
  “to prepare themselves most fitly to follow in her footsteps“ (Fenwick).

- FNF works to improve patient care through the provision of research and travel scholarships:

  2016-17
  
  of 87 applications, 27 Research Scholarships were awarded.
  
  of 34 applications, 19 Travel Scholarships
Background

- Travel Scholarship Aim: an investigation into what exists in post graduate children's orthopaedic nurse education.

Comparing the United Kingdom with Australia

- MSc: Defining Paediatric Orthopaedic Nursing Expertise

Problems:
- Lack of courses
- In-house SD’s
- Patient pathways of care
- 12 hour shifts
Let’s Articulate

- **Articulation** - the act of expressing something in a coherent **verbal** form

- **Focus Groups**

- Problems identifying and articulating what it is we do
Identifying the issue

- What’s the problem?
  - Serious concern for the future of children’s orthopaedic nursing
  - Limited insight into children’s orthopaedic nursing, in pre-grad nurse training.
  - No specific post grad courses in England.
  - Ward nurses supported by nurse specialists/nurse practitioners (only in large teaching hospitals)
  - Mixed surgical wards – ‘Jack of all Trades’
  - Demise of Orthopaedic hospitals
  - Loss of expertise – retirement etc
  - Time/energy/motivation
Identifying orthopaedic nursing as a specialty

**UK:** Drozd M, Jester R, Santy J

**Australia:** Orthopaedic nursing in the 2010’s: a critical ethnography. (McLeish 2012)

**New Zealand:** Seeing the World Through Orthopaedic Eyes. (Blake-Palmer 2006)

Overall Problem:
The identity of orthopaedic knowledge and skills gets lost in translation and muddled in with surgical and medical nursing skills, with the addition of some specifics such as casting, traction, immobility, pressure areas & pin sites.
As a result of the marked advancement in medical science, a great deal more is required of the nurse at present than was the case many years ago. She has to comply with many demands……and in the use of improved technic for the care and treatment of patients…..If the nurse is to measure up to these requirements, better facilities for education and training must be provided. …..The nurse of the future must have more initiative, resourcefulness and stability…..and in general a better cultural and technical education.
Orthopaedics is: SIMPLE

- Fractures/Casts etc
Acute compartment syndrome of the upper extremity in children: diagnosis, management, and outcomes. Kanj et al

The most common etiologies were fracture.
What is Nursing Knowledge?

Nursing was regarded as a vocation/duty to care

- Conrad (1947)
  ‘knowing what the patient wants before she (the nurse) is asked’,

- Katz (1969)
  ‘knowledge of the heart’

- Benner (1984)
  knowledge is ‘embedded in practice’
Why do we need orthopaedic knowledge?

- Underpins what we actually do.
- Defines us as nurses with a ‘unique body of SPECIALIST knowledge’
- It makes a statement of who we are and what we do.
- It means we are accountable.
How much do we need to know?
Is it important to KNOW?
How little can we get away with?
Basic Knowledge
Expert knowledge
Children become adults

These children are your patients now
These children will become your patients in the future
Travel Scholarship

Scoping exercise

Contacts:
Directors of Nurse Education, University Lecturers, Clinical Practice Educators, Nurse Practitioners, Clinical Nurse Specialists, Consultant Colleagues, Link Nurses, Nursing Forums (SOTN, CYPOTC, ANZONA etc), Nurses.

Australia

Point of initial contact = physio & ANZONA

Utilised networks.
Format for Travel Scholarship

- Questionnaires to ward nurses
- Informal Focus Groups - nurses: N. Ireland (Post grad students), Melbourne & Adelaide
- Discussions with university lecturers
- Online Survey to nurses
- Talking to doctors
- Questionnaires to families
Questionnaire Results UK
Knowledge for Children’s Orthopaedic Nursing

Mixed Surgical Ward
- A&P
- Potential complications
- NV obs
- Knowledge of Traction
- Knowledge of cast care + complications
- X ray interpretation
- Conditions

Children’s Orthopaedic Ward
All plus:
- Skeletal growth
- Ortho conditions and management
- Ortho infection and mx
- Procedures/operations
- Fracture mx
- Pressure care
Questionnaire UK
Skills for Children’s Orthopaedic Nursing

**Mixed Ward**
- Traction
- Pain assessment
- Cast care, including spicas
- Assessment
- ‘as above’ i.e. same as knowledge

**Children’s Orthopaedic Ward**
- Mx of pain, including epidurals
- Positioning
- Pin sites
- Dressings
- Application of cast material + splitting
- Traction
- Orthotics/braces etc
Preferential Format for Learning
In-house

- Regular teaching sessions
- BUT ad hoc
- Traction – Always requested.
- Practical sessions
- Conditions and their management
Exploring children’s orthopaedic nursing expertise (Survey Monkey)

Have you undertaken a post graduate orthopaedic course? 53%

- Children's orthopaedic and Trauma Course
- ENB in Orthopaedic & Trauma Care Nursing. BSc (Hons)
- Orthopaedic course at RJAH Orthopaedic hospital
- Principles of Trauma Nursing. Cardiff in 1997. It included some children's lectures
Do you believe nurses need specific orthopaedic EXPERT knowledge to provide safe and effective care for the child with an orthopaedic problem? **YES**

<table>
<thead>
<tr>
<th>Mx of paediatric trauma/fracture care</th>
<th>Understanding rationale of Mx and Rx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skeletal growth and development</td>
<td>Understanding of childhood disorders and the lifetime impact</td>
</tr>
<tr>
<td>Specific diagnosis and conditions &amp; mx</td>
<td>Knowledge of complex traction, plaster care, spinal patients, orthopaedic frames, pin sites, orthotics</td>
</tr>
<tr>
<td><strong>Child Protection</strong></td>
<td>Prevention &amp; recognition of complications, Effective risk assessments</td>
</tr>
<tr>
<td>Clinical manifestations</td>
<td>Discharge/ongoing care advice</td>
</tr>
<tr>
<td>Disability &amp; impact on child and family</td>
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</tbody>
</table>
Do you believe nurses need specific orthopaedic expertise to provide safe and effective care for the child with an orthopaedic problem? **YES**

| Recognise signs and symptoms, and be able to act accordingly. **To teach and instruct others** | Apply all types of traction and **teach others** |
| Care of external fixation devices. Pin site care. | **Be able to apply expert knowledge** in practice |
| Compartment pressure measures | Specific care related to different conditions/surgery. E.g. Care of the child with DDH, Club Foot, Casting, Traction, Perthes etc |
| Distraction/communication skills | Examination of the orthopaedic child |
How do you keep your children’s orthopaedic knowledge and skills up to date?
Are you aware of any online educational resources for children’s orthopaedics?
In what format would you prefer a course to be?

- Online
- Webinars
- Face to Face
- Competency
- Other
What did I learn in Australia?

Melbourne

- Large Children’s Hospital
- Mixed surgical ward
- On the job learning
- Online teaching resources - some really good

**Clinical Practice Guidelines**

- Most are medically focussed. Excellent for junior doctors.
- Some nurses - unaware of existence
Paediatric Fractures Guidelines

The following Guidelines are for use in the Emergency Department.

- Clavicle
- Proximal humerus
- Humeral shaft (diaphysis)
- Elbow
  - Supracondylar
  - Lateral condylar
  - Medial epicondyle
  - Monteggia fracture-dislocation
  - Olecranon
  - Radial neck
- Forearm
  - Radius and ulna shaft (diaphysis)
  - Monteggia fracture-dislocation
  - Galeazzi fracture-dislocation
- Wrist - distal radius and ulna
  - Metaphyseal
  - Physis (growth plate)
- Hand
- Hip and proximal femur
  - SUFE
  - Hip dislocation
  - Neck of femur
- Femoral shaft (diaphysis)
- Tibial shaft (diaphysis)
- Ankle - distal tibial and fibula physeal
Adelaide

Children’s Hospital, Flinders Medical Centre

- Nurse Practitioners and Practice Educator.
- Support for nurses
- Policies and guidelines for the nursing and medical management of orthopaedic conditions
- Self directed learning packages
- Weekly in-house education sessions
- Dedicated paed orth teaching programme
- Monetary incentive: $24 /week for education (not ring fenced).
- 8 hour shifts
- Mixed surgical wards

Lyell McEwin, Sports Med

- Simple trauma. N.B. What is simple?
- Nurses need to be multi-skilled
- Need the ‘paediatric ortho eye’
- Support from paed NP’s (no ortho training)
- Regular teaching scenarios focusing on the ‘deteriorating patient’
- Private hospital: Limited. Only Stat and Mand
- Benchmarks and protocols shared with other private facilities – e.g. medications mx
What the nurses said (informal focus groups)

- Paediatric skeletal growth: Anatomy and variances
- Vitamin D and impact on bone health
- Clinical reasoning
- Developing/updating nursing skills & knowledge
- Fractures
- Traction/splinting
- Conditions: Congenital, Acquired, Syndromic

Evaluation of the child
- The sick child (e.g. sepsis)
- Pain
- Neurovascular status
- Gait
- Response to healing and interpretation of bloods, Imaging
- Imaging modalities
- Education of child and Family
- What are the responsibilities of the nurse?
- What is their role in supporting child and family?
Doctors view

Australia

- **Adelaide**: Kids ortho patients are dispersed across different hospitals
- Limited continuity of care.
- Reliant on junior doctors/nurses to report problems/concerns

- **Melbourne**:
  Large children’s teaching hospital
  Excellent online resources, but mainly aimed at medics
  Some include nursing aspects with cross referencing.
  Knowledge of what is complex versus frequent.

Complex: care of complex CP child and post operative care. E.g. Use of antispasmodics post op hip pain
Frequent: NV obs, plaster care, pressure area care etc

**Need Knowledge to have Confidence before you can be Competent**
Northern Ireland

- Only course incorporating children
- Across the Lifespan
- Nurses welcomed the opportunity to study orthopaedics from the perspective of both the child and the adult patient.
- Found that they could identify with the transition of orthopaedic care from child to adulthood
- Realised the impact of childhood orthopaedic conditions in later life
<table>
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<th>Question</th>
<th>Response</th>
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<tr>
<td>Was main nurse who looked after your child on the ward a:</td>
<td></td>
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<tr>
<td>a) Staff nurse (qualified), b) Health care assistant (unqualified), c) Not sure</td>
<td></td>
</tr>
<tr>
<td>Do you think it is important that the nurse looking after your child has received <strong>education</strong> in children’s orthopaedic (bone/muscle) problems?</td>
<td>YES</td>
</tr>
<tr>
<td>Comment: ‘No for basic care, BUT would have been nice to have someone with specialist knowledge on the ward’ (Parent of child having open hip reduction)</td>
<td></td>
</tr>
<tr>
<td>Did the nurse demonstrate <strong>knowledge</strong> about your child’s orthopaedic condition/operation?</td>
<td>Comments:</td>
</tr>
<tr>
<td>'Only the NP demonstrated any specialist knowledge about the operation and my child’s care.’</td>
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<tr>
<td>‘very understanding and informed’ (child with special needs having removal of metalwork)</td>
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<tr>
<td><strong>ASK THE PARENTS</strong></td>
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</table>
| Did the nurse demonstrate **skill** in caring for child’s orthopaedic condition/operation? | Mostly ‘yes’  
‘Only the NP demonstrated real skill, that helped me in caring for my child’ |
| How would you **rate the nursing care** provided by the nurse/s? | ‘Generally satisfactory’ versus ‘excellent’, ‘good’ |
| Was the nurse able to **answer your questions** about your child’s orthopaedic condition/operation? | ‘Only the nurse practitioner’.  
‘Some of the nurses were pretty vague’  
‘yes in the main’ |
| Is there anything about your child’s nursing care that you feel **could have been improved**? | ‘Basic care good, but up to me to find people and ask’. More time spent with parents.’  
‘I was very impressed. They managed her difficulties amazingly’ |
How does it all compare?

UK and Australia

**UK**

- 13% universities offer specific orthopaedic qualification/pathway.
  - Orthopaedic Hospitals: affiliated with universities (e.g. RNOH (London), Birmingham, Oxford).
  - Preceptorship training (in-house study days) for newly qualified nurses
  - Some **Post-registration Education** - adult pathways
    - e.g. Principles of Orthopaedic Care
  - Work-based learning contracts - Individual sets agreed learning outcomes with a clinical educator
    - Commercial courses: Developing Practice in Orthopaedics (2 Days)
    - Northern Ireland (Across the Lifespan)

**Australia**

- Orthopaedic courses (? %)
  - Pre-graduate scenario-based education
  - University Post Graduate Orthopaedic Courses: plan to make them ‘across the lifespan’
    - Adelaide, Tasmania, Cairns, Others?
  - Combination of Face to Face and online content

**Nothing for Paediatric Orthopaedics as an entity**

Post-grad courses (adult pathway), UK and Australia. Numbers for uptake = a problem.
Travel Scholarship Conclusions

- UK and Australia – many similarities
- Little pre-graduate orthopaedic nursing education/exposure
- Learn on the job
- Poor uptake of post graduate course places (adult pathway)
- BUT – nurses want Face to Face.
- To be able to continue with sufficient numbers – will need to adapt to ‘Across the Lifespan’
Conclusions (cont’d)

- Loads independent work – lots of effort
- No collaboration

“I share your frustrations. We provide in house teaching about paediatric orthopaedic conditions from myself and nurse specialists and send staff on the Adult nursing pathway”

“My predecessor in the educator role did attempt to devise a Paediatric Orthopaedic e-learning package......which she hoped to get accredited, but this sadly never came to completion or fruition”
What are the preventions to wanting to keep learning?

- No specific children’s courses
- Time
- Energy
- Short staffed
- Motivation
- Funding
- Dedicated study time
- No financial reward/promotion
Online Resources

- NAON: Online Orthopaedic Nursing Review Course. Web-based. Certified

- **Orthopaedic Nursing** Iyr P/T online

- Adelaide - Graduate Diploma in Nursing Science (Orthopaedic Nursing)

- [https://www.ausmed.com/](https://www.ausmed.com/)

  Wound Care Manual and Clinical Guidelines for Nurses

  Amputee Awareness

- ICON - uniting nurses around the world

- Social Media
Application of Thomas Splint Traction
Are orthopaedic nurses generalist or specialist?

We need to decide if we want to be Generalist (‘Jack of all Trades’) or Specialist.
Do we need to be superheroes?
Develop and Grow

- Practice
If I don’t practice:
Competence to Practice

- UK - Nursing and Midwifery Council - Revalidation

- Australia: Nursing and Midwifery Board of Australia (NMBA): ‘it is the individual’s responsibility to maintain competence and to have a contemporary knowledge and skill base in order to provide best practice nursing....’

- New Zealand: recertification. It is the professional responsibility of all practising nurses to maintain their competence to practise.
Commitment to Education
Nursing and Midwifery Council (UK)

NMC is committed to delivering a programme of change for education between 2016 and 2020, to modernise education standards and ensure that nurses and midwives are equipped with the skills and knowledge they need to practise now and in the future.

- New Standards for education in draft for consultation
The importance of nurses
Here’s a question?

‘Do we need to re-invent the wheel’?

- Currently in most places there is a lot of good educational work
- Many different re-productions of the same thing
- No standardisation
Here’s an answer!

We could all pull together!

- Utilise what we have: Networks - ICON, ANZONA, SOTN +++
- Agree and produce standards for care
- Competencies that nurses can work towards
- Advertise the good stuff
- Find alternative ways
Can we learn from our medical colleagues?

- Range of PPT lectures
- British Orthopaedic Association Podcasts
- NAON Online Orthopaedic Nursing Review Course (2016)
- Strive to deliver post graduate Orthopaedic Courses Across the Lifespan?
A standardised career pathway for orthopaedic nursing?

Aim high – improve quality of care

• Educational sessions
• Hands-on workshops
• Skill building sessions

An education isn’t how much you have committed to memory, or even how much you know. It’s being able to differentiate between what you know and what you don’t.

(Anatole France)
What’s necessary?

- Positive work environment
- Positive leadership
- Positive role models
- Develop people
- Develop practice
- Grow new staff
- Enthusiasm
- Recognition
Ownership

- Personal development
- Personal growth
- Personal improvement

Personal Choice?

“How much time did you say I had to know these?”
What could work for children’s orthopaedic nursing?

- In-house online module as part of statutory and mandatory learning
- Web based programme
- Podcasts
- Including learning as part of every day practice
- Facilitation of time for learning
- Develop an education & career Framework
Simple Solutions

- Enabling staff to embrace opportunities to learn e.g. ward rounds, ward handover, case discussion when looking after a patient,
- Encouraging staff to seek the answers - communicate with expert nurses, doctors.
- Discuss and share knowledge and experiences with colleagues - reflect.
- Identify good role models
- Learn from MDT - physios, OT’s, pain team
- Learn from families and carers
Summary

- Nursing is a global profession with similar strategies required for ongoing education around the world.

- For paediatric and adult orthopaedic nursing – we should utilise current professional networks in an improved way and utilise our global network to enhance our knowledge and open up communication pathways.

- Social media networking can play a part.

- Potentially could form a professional faculty within ICON

- Need to be creative - innovative e-learning applications and new learning technologies

- Create a career pathway in orthopaedic nursing
Summary
Thank you