



THE HARRY CROSSLEY
Children's Nursing
Development Unit



2020 Annual Report

Executive Summary

2020 was the Year of the Nurse, and in ways that no one anticipated, the contribution of nurses has been front and centre as this year unfolded. We are thankful to report that despite all the challenges, we are on track with the majority of our activities. Key achievements include significant progress with the development of two new blended learning programmes, the completion of a masters programme by five more nurses, progress with the workforce observatory project, and contributions to evidence based clinical practice development through the preparation of four major research outputs.

One of the most significant developments in terms of organisational governance this year has been the formal recognition of our programme as a UCT Teaching and Scholarship Unit. This represents very welcome recognition and established the Unit firmly within the organisational

structure of the Department of Paediatrics, helping to secure our long-term sustainability. The Harry Crossley Foundation has generously provided funding for 3 years for the Unit Director's salary, which we recognised with a name change to The Harry Crossley Children's Nursing Development Unit (CNDU).

Although no in-person meetings have been possible, we have led really engaged capacity-building with partners through the Children's Nursing Educators Forum online, and connections with colleagues across Africa have grown stronger than ever as we reached out and supported one another through such difficult times. As nurses we are trained to assess situations clearly, react quickly and with compassion, and keep calm in crises. More than ever this year, we are proud that we are nurses.

Educating children's nurses



Postgraduate training at the University of Cape Town to build a children's nursing workforce

Annual Graduate Follow Up Survey

100% of respondents have been successfully retained by their employer, 2 years post graduation



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Master of Nursing in Child Nursing Programme

Despite four months without access to the clinical area at the Red Cross and two of the students contracting COVID, all five MNCN students completed their studies on schedule. These five students have displayed such tenacious perseverance and ability in this year on a programme that in normal times would stretch students to the limit. Clinical feedback from medical clinicians and preceptors was that they were 'eager to learn, motivated, energetic and a massive help to have around'. From this cohort, one has returned to Zambia and already been appointed as a paediatric nurse specialist in the PICU of a private hospital in Lusaka. The other four (all from South Africa) had to resign from posts to study and are currently considering job possibilities.

Post Graduate Diplomas in Child Nursing & Critical Care Child Nursing

Three students from 2019 repeated the Clinical Sciences course in 2020. This one semester course had to be extended into a second semester due to clinical pressures for students brought about by COVID 19. All three students were given extensive and thorough additional support throughout the course, resulting in two of the three passing.

Work to transition the two existing postgraduate diploma programmes to blended learning courses is progressing well and a full submission of two children's nursing curricula along with two other clinical specialities, was made to the South African Nursing Council (SANC) for accreditation in early September. We are unfortunately still waiting for a response from the SANC, which means that changes might still need to be made to curriculum, but development of learning outcomes and objectives as well as the arrangements for assessment have continued. The final stage involves creation of the courses on Vula (the UCT online learning platform) and the development of all teaching/learning materials. Throughout this work the team have been expertly supported by Professor Laurie Posey (George Washington University, US) and the Centre for Innovation in Learning and Teaching (UCT).



PhD supervision

Four of the five doctoral candidates under supervision in the Unit continue to make expected progress. One candidate submitted her thesis in 2020 and has since graduated. Another candidate is on track to submit in 2021.

The online PhD preparedness programme was launched as an official UCT short course and took place over twelve weeks from September - November 2020. Of the 17 students who enrolled, 14 completed (82%). Evaluation suggests that the course was very much valued. 75% felt 'much better prepared now than before I started this course'.

I have been toying with the idea of doing my PhD for a few years. However, something always comes up. Perhaps it was my lack of self-confidence that held me back. But no more. I feel ready and energized for this challenge. More so by doing the PhD preparatory course

2020 PhD Preparedness Course Student

Education practice development



Supporting the development of locally relevant, in-country training

CNDU has supported the establishment of **11** children's nursing programmes to date, in **5** different African countries



Children's Nursing Educator Forums

The Children's Nursing Educator Forum has been one of the unexpected success stories of our year. Since the planned meeting was not able to go ahead in person, we pivoted to a series of three shorter online meetings.

- The first meeting in July featured a guest webinar by US-based nurse practitioner and wellness coach, Eileen O'Grady. This inaugural event was designed to help nurse educators maintain and support health and well-being in extreme situations.
- The second session in September featured the team from UCT's Centre for Innovation in Learning and Teaching (CILT) looking at practical skills-building for online education. This meeting was joined by more than 30 participants on 24 screens representing 11 schools of nursing in 9 African countries.
- The last meeting of the year in November, focussed on celebrating the role and contributions of nurses and nursing educators, as well as a briefing on the workforce observatory sharing project.

As well as being a really popular and engaged forum, this series of meetings has provided an opportunity for our own team to put our rapidly growing online facilitation and hosting skills to the test. Team members have capably facilitated online meetings of up to 40 participants at this year's Forum meetings, using breakout rooms, live polls, and video to great effect.

It is sad to hear that so many of the institutions we support in other countries have had to send children's nursing students home because of the pandemic, with no clear sense of when teaching will resume. Despite this, the educators remain dedicated to advancing children's nursing and we feel there is real value in growing the sense of cohesion between educators at this time.

Establishing children's nursing education programmes at peer African institutions

The Lusaka College of Nursing, Zambia: new postgraduate neonatal programme. The curriculum has been approved by the General Nursing Council of Zambia, and the Council has submitted the curriculum to the Zambia Qualification Authority (ZAQA) for scrutiny. Thirty students have already been identified to undergo training and will be enrolled as soon as accreditation is complete. The team in Lusaka are still hoping to commence training this year, possibly in June.

The Bamalete Lutheran School of Nursing, Ramotswa, Botswana: This determined team continue to make progress in establishing children's nursing training. The curriculum has been accredited at Level 9 (Postgraduate diploma) as per the original plan. National stakeholders have now asked that the programme be redeveloped with a bridging course to allow general nurses with a diploma to qualify for admission into the programme. Currently the curriculum is with the Botswana Qualifications Authority (BQA) for qualification assessment. The team continue to work on the learning programme as they wait for qualification assessment with BQA. They report that they are pushing very hard so that the programme can start in 2022, recognising that a 2021 start will not be feasible due to funding and the current pandemic shifting goalposts.

We continue to support colleagues at both these schools very actively and have great admiration for their determination and deep commitment to advancing children's nursing training in the face of so many obstacles.

Clinical practice development



Implementing and measuring the impact of evidence-based, context-specific practice

This year the Master's students produced 3 further Evidence Based Practice Guidelines. 11 produced to date



Nurses Journal Club

We were sad that the popular hospital journal club for nurses that research team member Angela Leonard runs at the Red Cross War Memorial Children's Hospital had to stop meeting in March due to the pandemic. We are grateful though that we had completed data collection for an evaluation of this journal club before that happened. Statistical analysis of that evaluation data suggests that the journal club is highly successful in meeting its objectives of increasing research awareness and application among nurses. This research is being written up for publication. A practical guide to 'how to run a journal club' was piloted through two invitation-only webinars in 2020 and is now being finalised before roll-out in 2021.

The Nurse's Role in Promoting Non-pharmacological Sleep in a Children's Ward

Background

- Sleep is important (especially in children) to boost immunity, assist recovery^{1,2}, regulate vital signs³, emotions and perceptions of pain^{4,5}, assist brain growth, development^{6,7}, learning and memory^{8,9}.
- Hospitalisation disrupts sleep in children^{10,11}. Poor sleep in hospital may complicate and prolong hospital stay¹².
- To maximise benefits, sleep must be prioritised in hospital as an opportunity to facilitate better sleep for children, which may extend after discharge. Therefore, maximising benefits to the child, and health care system¹³.

Purpose

- Non-pharmacological sleep promotion is a cost-effective and safe method of improving health, at a public health level.
- Nurses are excellent at building partnerships¹⁴ and are the most constant health care workers¹⁵⁻¹⁹ able to connect with families and promote sleep, especially in hospitalised children.
- This evidence based practice guideline was developed through a rigorous research process. The guideline was modified from two international, adult, sleep promotion sources.¹⁶⁻¹⁹ Modification ensured recommendations were relevant and implementable to children, in a low-middle income context.

Flow chart for non-pharmacological sleep promotion in-hospital

This flow chart is to be used in conjunction with the full evidence-based practice guideline (available from the author) and appropriate staff education and training.

- 1) Safety and special consideration**
 - Ensure patient safety
 - Is it safe for the child to sleep now?
 - Are vital signs up to date?
 - Has a sleep history been taken?
 - Priority care ward standards, clinical judgement and patient needs²⁰
- 2) Collaborate with mother/caregiver**
 - Is the mother present at the bedside?
 - Support the mother (or bedside carer) to settle the child and to protect individualised sleep for child
 - Goal: In-hospital sleep that is closest to at home sleep
- 3) Ward routine**
 - Is it protected sleep time in the ward?
 - Rest periods: 13h00 – 14h00 OR 22h00 – 05h00
 - Ensure the child's comfort before sleep (Use Regu8 framework²¹ to guide)
 - Goal: In-hospital sleep that is closest to at home sleep
 - Cluster care.
- 4) Ward environment**
 - Is the environment conducive to sleep?
 - Remedy sleep disturbances
 - Goal: Quiet, low light ward without technological or other sleep distractions
- 5) Involve Health care team**
 - Is everyone informed of the guideline?
 - Inform mother, staff and other persons (e.g. visitors) of guideline and importance of sleep
 - Help children sleep better, be less stressed, develop, cope and recover better
- 6) Assess sleep**
 - Evaluate sleep using BEADS sleep screening tool²²
 - Compare child's sleep with age appropriate sleep target:
 - 4-12 months: 12-16 hours
 - 1-2 years: 11-14 hours
 - 3-5 years: 10-13 hours
 - 6-12 years: 9-12 hours
 - Notes: Sleep from 0h00 to 24h00 for healthy children, per 24 hours; All children may sleep more.

Apply problem-solving, clinical judgement and revisit previous steps to reach sleep target.

References:

Author: Elijshca Cross M Nur (Child Nurse), PGDip (Child Nurse), RChildN, B Cur, RN, Midwife, Email: Elijshca@gmail.com

The Harry Crossley Children's Nursing Development Unit

Evidence-based practice guidelines

Another significant success of 2020 was the completion of another set of Evidence based Practice Guidelines projects by the five master's students.

This year the course was redesigned to align the process with best practice recommendations from the MRC South African Guidelines Excellence (SAGE) project. The topics this year were:

- The nurse's role in supporting mothers in administering oral medication to their hospitalised children
- The nurse's role in partnering with mothers to keep fluid balance records for a hospitalized child
- The nurse's role in promoting non-pharmacological sleep in a children's ward.

Poster summaries are available to download here:

https://vula.uct.ac.za/access/content/group/9c29ba04-b1ee-49b9-8c85-9a468b556ce2/MNCN/MNCN_1_.html

Urine Colour Chart



Simple intake and output record

Child's name: _____

Mothers can use this chart to record intake (milk, water, juice, tea, soup and breadstuffs, and feeds given by naso-gastric tubes as appropriate) and fluid output (loss through urine and diarrhoea) for their child. The nurse has overall responsibility for teaching mothers about the importance of recording intake and output, and how to do so. The nurse is responsible for using the information provided by mothers to maintain an accurate fluid balance record for the patient.

OUT	Date	1	2	3	4	5	6	7	8	9	10	11	12
Urine		○	○	○	○	○	○	○	○	○	○	○	○
Other		○	○	○	○	○	○	○	○	○	○	○	○
IN		○	○	○	○	○	○	○	○	○	○	○	○
Milk		○	○	○	○	○	○	○	○	○	○	○	○
Other		○	○	○	○	○	○	○	○	○	○	○	○

Source: The nurse's role in partnering with mothers to keep fluid balance records for a hospitalized child. James B & Mwale A, 2020. Available from https://vula.uct.ac.za/access/content/group/9c29ba04-b1ee-49b9-8c85-9a468b556ce2/MNCN/MNCN_1_.html



Source: The nurse's role in partnering with mothers to keep fluid balance records for a hospitalized child. James B & Mwale A, 2020. Available from https://vula.uct.ac.za/access/content/group/9c29ba04-b1ee-49b9-8c85-9a468b556ce2/MNCN/MNCN_1_.html

Evidence for education, practice & policy



Gathering and sharing evidence on, about and to support Africa's children's nursing workforce

CNDU achieved **6** more peer-reviewed publications in 2020, bringing the total for the Unit to **29**



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Children's Nursing Workforce Observatory

This online Children's Nursing Training Directory will make it easier for funders, employers and potential students to find information about programmes. An annual report with data visualisations will present the scale of training activity and trends, showing graduate numbers and educator capacity across our community.

The information sharing template for the Children's Nursing Workforce Observatory was designed and launched in November using a collaborative project space on the Open Science Framework. It was distributed to all children's nursing training providers in southern and eastern Africa. The information collected focused on training activity, including information on the numbers and types of programmes offered, qualifications awarded, student throughput, educator capacity, plans for expansion and challenges experienced by educators and institutions.

The framework for capturing information from contributors has been designed to be fully compatible with in-country HRHIS and National Health Workforce Accounts and is consistent with WHO minimum data set requirements. The Open Science Framework project site can be viewed here <https://osf.io/tegx7/>. Data analysis and report generation will happen later in 2021, with the first suite of reports published thereafter. Each institution that contributes information will receive a personalised country dashboard report which can be shared with local stakeholders to inform planning and dialogue.



Regul8 Framework

We are also proud to announce the publication of the **Regul8** framework developed by Associate Professor Minette Coetzee. Developed over more than ten years, it comprehensively outlines 8 key domains fundamental to children's nursing care that intentionally support autonomic regulation in children. An intentionally Afrocentric guide to children's nursing care planning, the Regul8 framework is the basis for curricula in the majority of children's nursing educational programmes in southern and eastern Africa. Available as an Open Educational Resource at: <https://open.uct.ac.za/handle/11427/31206?show=>.



Priority activities in 2021



With gratitude

Children's Hospital Trust

Children's Hospital Foundation

Harry Crossley Foundation

Vitol Foundation

Burdette Trust for Nursing

ELMA Foundation

Phatisa Foundation

Sleepnet

Thank you!



We began 2021 by consulting with national and international colleagues about the impact of the COVID-19 pandemic on efforts to build children's nursing. Here is what they told us.

- Ward closures, and cancellation of non-emergency care have had a significant impact on paediatric services, at all tertiary and secondary paediatric inpatient facilities.
- Staff redeployment to adult wards, and COVID-related staff absence resulted in reduced availability of suitably trained and experienced nurses to care for sick children in hospital.
- Children in hospital are typically more acutely unwell than some units are used to caring for, and they may have specific care needs with which nurses are not familiar (e.g. respiratory care).
- Due to intense resource pressures, most hospitals have suspended in-service staff training sessions. None of the South African hospitals we spoke to expect to be able to release nurses for training in 2021.
- Educators in other countries are finding it very difficult to transition to online teaching. Challenges for the educators themselves include lack of familiarity with the techniques involved in creating online content, poor connectivity and out of date or low quality technology and devices. Both educators and students are affected by power outages, intermittent access to often low-quality Wi-Fi connections, and affordability. Many of the educators we spoke to are using privately purchased mobile data to maintain communications. It seems to be a common expectation that students should also use privately purchased mobile data. Delivery of synchronous online learning seems unfeasible, and educators lack of familiarity with the techniques involved in creating online content for effective asynchronous learning.

In response to the altered situation we are all working in, and in line with what colleagues are saying they need right now, we will be re-orienting some of our planned activities in 2021 as follows:

- **Blended learning platform development:** we will continue to develop two comprehensive PGDip programmes ready for when we can enrol students again. We will prioritise development of short learning packages on topics that clinical colleagues are requesting, including respiratory care and essentials of nursing children for nurses who are not already paediatric specialists. We expect to start making these short learning packages available by mid-year. As reported above, the continued delay with the SANC's accreditation of nursing education programmes is likely to result in fewer students being enrolled over the grant period than originally projected.
- **Journal club:** In response to requests for professional development activities for nurses, we will move journal club online from March 2021. We will do some rapid redesign of the format to allow small ward-based groups of nurses to complete journal club sessions together in their own time.
- **Children's Nursing Educators Forum:** We have already switched from holding one annual event in 2020, to holding quarterly online events. We will continue to run regular online meetings for this community of practitioners which remain responsive to their needs. A strong focus will be on supporting transition to online teaching.
- **Workforce observatory:** The requirements to obtain separate research and ethical approvals for all countries has meant that the scope of the Workforce Observatory project has had to be refocused onto education and training providers. The surveys of other in-country stakeholder groups (HRH and nursing registries) have been paused because of difficulties obtaining approval by multiple national research ethics boards. The report that PERCEPT provided has been shared with UCT's Office of Research Integrity and we are participating in a university-wide working group to look at streamlining ethics approvals since these requirements are affecting many pan-African collaborations. Any outcome of this will be some way into the future, so we are glad to have found a way to make progress with this project in the meantime.

Financial Report

Expenditure Report, 1 January - 31 December 2020

Budget by Line Item	Budget 2020 (ZAR)	Actual Spend 2020 (ZAR)	Variance	% Variance Over / Underspent
Personnel (includes 20% staff overhead charge non UCT funded staff)	R 10,301,230	R 6,600,112	R 3,701,117	36%
Education at UCT	R 956,232	R 1,238,662	R -282,430	-30%
PG Dip Student Study Support	-	2,008	-2,008	
MNCN Student Study Support	42,400	243,303	-200,903	-474%
SA Student Bursaries	600,000	730,000	-130,000	-22%
APFP PGDip Bursaries	-	10,712	-10,712	
APFP MNCN Bursaries Year 1 & 2 Bursaries	248,854	245,197	3,657	1%
Blended learning costs	64,978	7,443	57,535	89%
Education Practice Development - Visit and Forums	R 284,769	R -	R 284,769	100%
Support Visits	142,888	-	142,888	100%
Children's Nursing Educator Forum	141,881	-	141,881	100%
Clinical Practice Development	R 147,800	R -	R 147,800	100%
Building Children's Nursing Conference	-	-	-	
Clinical Practice Development Development & Visits	147,800	-	147,800	100%
Research - Evidence for Education, Policy & Practice	R 200,840	R 204,035	R -3,195	-2%
APN Fieldwork	3,816	-	3,816	100%
Publishing	80,000	87,159	-7,159	-9%
Graphic Design - Policy Briefings, Publication & Dissemination	50,880	85,840	-34,960	-69%
Transcription Costs	66,144	31,036	35,108	53%
Salesforce & Workforce Observatory & Platfor				
Operational Expenditure	R 149,764	R 129,827	R 19,937	13%
Training materials and refreshments	22,896	5,954	16,942	74%
Photocopy/Printing	50,880	30,671	20,209	40%
Software - Graphics, Animations	38,160	18,122	20,038	53%
Professional Printing for Briefings	1,272	-	1,272	0%
Communications support	1,590	1,590	1,590	100%
Equipment -IT Software	8,000	52,309	-44,309	-554%
	26,966	22,771	5,467	19%
Program Development	R 140,494	R 45,423	R 95,071	68%
Initiative Staff Conference Attendance & National Forums	136,494	36,223	100,271	73%
Staff Capacity building	4,000	9,200	-5,200	-130%
	R 12,181,129	R 8,218,060	R 3,963,069	33%

Variance in Expenditure

Total expenditure in 2020 was R 8 218 060. The underspend of R3 963 069 (variance of 33% on original budget), is attributed primarily to underspend on staffing:

1. 2 Vacancies in PG Dip teaching team:

One post vacated - advertised but no suitably qualified critical care educator found;

New Clinical Learning Manager post not filled due to delays in SA Nursing Council accreditation of PG Dip programme meaning that programme not run in 2020 & existing staff therefore able

to fulfil this role to work on development of blended learning programme

2. Senior Lecturer for Masters programme remains vacant - work covered by existing staff and part time consultancy offered by Advanced Practice Nurse - cost of which reflected under Key 2.2 not staffing

3. Researcher - one vacant post. Instead we have accessed additional capacity through external consultants (reflected in Key 5.3) due to variation in expertise required for specific research projects

4. UCT staff overhead cost (payable to UCT at rate of 20% on all soft funded posts) - saving made due to reduced number of soft funded staff

5. Savings also made on operational expenditure & programme development as all meetings / conferences / Child Nurse Educator Forum moved online and staff mostly worked from home

6. Burdett funding also received in 2020 prior to commencement of Best Practice Unit work and employment of staff. Spend will only commence on this project in early 2022.