Neonatal Nurses College of Aotearoa (NNCA) Newsletter Winter 2019

Neonatal Nurses College Aotearoa - NNCA

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Welcome from the Editor

Rose Batchelor

Welcome to this edition of the Newsletter.

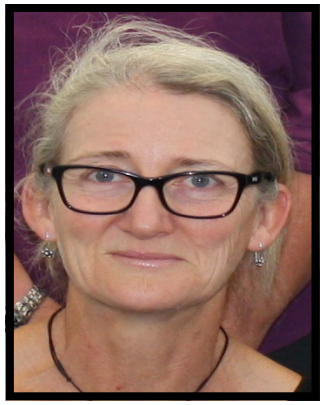
This newsletter is pretty special—celebrating our recent international conference where we were able to rub shoulders with the pioneers of neonatology, and network with neonatal nurses from around the globe. And, judging by the articles sent in to me, there was plenty to be excited about. For me, I certainly went back to my unit with different eyes—brimming with new ideas and new knowledge which was just begging to be shared.

One funny story I can share with you—is that on the Saturday morning prior to the Conference working bee, most of the NNCA committee was marooned out at regional airports unable to get to Auckland due to the fog and airport closure. Oh dear—all's well that ends well! I know many of us are hugely appreciative of the extraordinary work that went in behind the scenes to pull the conference together and make it such a resounding success. A big THANK YOU to everyone involved.

I hope you all enjoyed the stories from around Aotearoa in the last "Bonus" edition of the NNCA Newsletter. It would be great to carry on "What's happening in your Backyard?" as a regular feature to provide networking and a sense of togetherness in the neonatal nursing family. For those units who missed out on the previous issue—please send in your short articles sharing events and happenings from your neck of the woods.

Rose

From the Chair



Gina Beecroft

Enriched Family - Enhanced Care, leads to Enriched Nurses, Enhanced Care

Well, we dreamed and we delivered! NNCA on behalf of COINN have organised and hosted an international Neonatal Nurses Conference in our own backyard! But there was nothing back yard about the 10th Council of International Neonatal Nurses (COINN) Conference, it was a world class event.

As Kiwis we are great at understating or underplaying success. However, I think it is really important to acknowledge this phenomenal achievement. As a College in a wee country on the far side of the world we have just delivered an international conference that has been a resounding success on so many fronts. With well over 400 delegates from over 22 Countries joining together to learn and share global stories and expertise it was an inspiring and rejuvenating event.

I know many of you got to enjoy and benefit from the conference and I hope you have gone back to your units with new drive, enthusiasm, stories and new knowledge to share with your colleagues.

As neonatal nurses to deliver neonatal care we need to learn and develop two distinct skill sets. We learn a set of skills to care for the vulnerable neonate in NICU, but we also need to learn a distinct set of skills to care for their family. We can't care for one without caring for the other. The health and wellbeing of both are interlinked. As an aim of care is to promote developmental outcomes and potentials for babies, it is implicit neonatal care means baby and family, the conference recognised this.

So, while many international conferences focus on delivery of direct clinical care by the bedside clinician, the technological and medicinal advancements, our COINN conference was different. It focused on the family and this second distinct set of skills and knowledge we need to hone and develop as neonatal nurses, that of caring for the family. The conference acknowledged and showcased the family's integral role in the neonatal unit to optimising care and outcomes, and centred firmly on this. This made it both a unique and brave conference.

Continued.

From the Chair continued...

I say brave as this aspect of care is still often misguidedly seen as the “fluffy” side of neonatal care, and sometimes held in lower regard, and seen as an add on, or a not so important aspect of care. So potentially to hold an international conference on this aspect of care may have meant less international appeal and attendance. However, for both COINN and NNCA a core belief is family are a pertinent and critical element of neonatal care and as such a conference on this would be invaluable for promoting, showcasing and developing practice. The number of delegates and delegates representative of so many countries were testament this view is also held internationally by nurses.

Over the course of the conference the content and presenters then left us with no doubt that developmentally supportive family integrated care is not “fluffy” care. There is ample weight of evidence and research to support and back this crucial aspect of neonatal care, and it is not the poor second cousin in neonatal care that is relegated to the background.

It was a conference that resonated with many and an affirmation of practice. A conference that reinforced that family matters in NICUs and therefore in essence our job is twofold, baby care and family care. We recognise this and we need to learn to be good at doing both.

So, my plea to you all is if you ever have the opportunity to attend a conference either international or national, give it a go! The experience is invaluable and enriching. As well as being obviously educational, they are wonderfully inspiring and rejuvenating, they are birth places of innovation, practice development and improvements and new connections and friendships. In essence conferences also offer **Enriched Nurses, Enhanced Care.**

Finally, the conference success was not due to good luck, it has been due to the vision, drive, and meticulous planning and hard work by many. The conference was many many years in the making. Now hopefully this won’t read like an academy award speech, but on behalf of NNCA I want to take this opportunity to acknowledge and thank several integral and inspirational people who have helped ensure the conference success.

Continued.

From the Chair continued...

In particular I want to acknowledge and thank NZNO for their backing. The Organising Committee Chaired by Dale Garton, please see their names below. These people gave endless hours over many years to ensure this wonderful event was the success it was. Also, the current NNCA executive in ensuring we still attended to the other business we needed to conduct as a College amongst the hurly burly of being responsible for a hosting an international event.

Along with this ensuring we were in the most financially sound position to support as many of our membership as possible to attend this once in life time opportunity. Helen Barwick you are a treasurer extraordinaire, having to manage two sets of finances, NNCA and the Conference has been no small feat. Jodie Preston Thomas from the Conference Committee, the consummate professional that ensured it all did run like clockwork thank you. And Kate for that wisdom and guidance that keeps us all together and on the right track!

The Organising Committee for COINN 2019	THANK YOU ALL SO MUCH!!
Helen Barwick ***Waikato District Health Board***	**Paula Dellabarca** ***Capital & Coast District Health Board***
Wakako Eklund ***Committee Liaison – Japan***	**Eseta Finau** ***New Zealand Nurses Organisation***
Roslyn Gasparini ***Auckland District Health Board***	**Judy Hitchcock** ***Non-Executive Director, COINN***
Rosina Ho ***Auckland District Health Board***	**Carole Kenner** ***President, COINN***
Annie Marshall ***Southern District Health Board***	**Karen New** ***Advisor/Consultant, COINN***
Kerri Nuku ***New Zealand Nurses Organisation***	**Debbie O'Donoghue** ***Christchurch District Health Board***
Karen Walker ***Vice President, COINN***	**Kate Weston** ***New Zealand Nurses Organisation***

Continued.

COINN 2019

Enriched Family – Enhanced Care

5-8 May 2019, Auckland, New Zealand

Fisher and Paykel Neonatal Nurses of the Year 2019

Awarded at the COINN conference this year, for their outstanding contribution to Neonatal Nursing in Aotearoa

Janet Black and Leanne Baker

CONGRATULATIONS!!

ANZANN Corner

Barbara Hammond

Australia New Zealand Neonatal Network - ANZNN Corner

The aim of ANZNN is to “improve the care of high risk newborn infants and their families in Australia and NZ through collaborative audit and research.” Registration criteria includes any baby born at less than 32 weeks gestation, or a birthweight of less than 1500 grams, any baby who received intentional hypothermia or major surgery, or any baby who received assisted ventilation for 4 or more consecutive hours in the first 28 days of life (or who passed away on respiratory support prior to 96 hours of age).

If retrieved from a level II SCBU the baby is registered to the tertiary centre with the home Level II unit contributing the final data.

Presently 22 New Zealand Level II and III Neonatal units contribute data as well as 39 Australian II and III units. Units in Singapore and Hong Kong are also submitting data.

In a calendar year, each neonatal unit/SCBU supplies the birth to discharge data to their tertiary centre who then compiles the prescribed data timeline. ANZNN then collates all data received, does analysis, creates graphs, a report is published and the information supplied is used for a variety of ongoing research.

NNCA would like to acknowledge all the data collectors and will contribute updates with each NNCA newsletter

SAVE THE DATE Nov 7

First gathering of ANZNN data managers/collectors in Wellington Nov 7. Further details to follow.

Please forward any agenda items / questions / comments to Barbara.hammond@wdhb.org.nz

COINN Feedback

Helsa Fairless

Background:
Some years ago and after settling into this role, I was highly motivated to resume my professional pathway and re-engage in active learning with a tertiary institution. I had a strong desire to extend my previous PostGrad studies to advance my knowledge and skills from the basis of my current professional experiences at this specialised level, and for the benefits of the families we work alongside.

Fortunately for me, the academics and Programme Manager at Whitireia, NZ were thrilled to recognise prior learning and support my existing studies / qualifications and experiences. Although a wee apprehensive of returning to school, I enrolled in a programme specifically articulated to enable professionals an expansion on the delivery and contribution of advanced knowledge and scholarship. Mindful that this would create greater learning opportunities and wealth for the families and wider teams, the Masters of Professional Practice programme – Thesis Pathway – was going to allow me, to lead a research project, applicable and pertinent in application to the contextual professional practice, of my choice and topic of interest.

Mid last year, when the research proposal was waiting Institution & Ethical Review Committee approval, and I heavily engaged in reviewing current literature specific to my interest topic *"How do parents of complex preterm infants experience continuity of care, during their transition from NICU to home?"* was when I had first heard about one particular 'well known' nursing researcher, Dr Carole Kenner, coming to NZ as a key note speaker for COINN - Council Of International Neonatal Nurses, 2019. I had to meet her. I had reviewed her literature (among others of course) and I wanted to have a yarn; we shared a common interest. Not only that, I had decided what an amazing forum to network and so I again, pushed my personal envelope, and applied to present at the conference.

Present:
As a delegate (or attendee) at the 2019 COINN conference, and fortunate to receive a $750 scholarship by COINN to contribute towards conference fees, this gave me an opportunity to really 'network'. Over 400 delegates representing 21 countries and plenty of opportunity to network, I did in fact approach, meet and have a yarn with Dr Carole Kenner about my current research. I was 'star struck' to say the least, particularly as I also 'accidentally' meet other delegates who I had also reviewed their literature and shared a common interest including Marina Boykova, Julia Petty and Ida du Plessis-Faurie.

When Dr Carole Kenner opened the conference with her wise words on Sunday 5th May, her presentation invoked a few thoughts for me, which I would like to share with you all and I am certain that some will resonate with you too.

Continued.

COINN Feedback

Helsa Fairless

Dr Carole Kenner identified that:

- researchers have the real data to identify and validate, i.e. to help to support what is going on and how this reinforces care
- outreach teams are necessary for how care is provided and the quality that is provided, for the speciality that neonatal care is
- education and expertise for handling babies is highly necessary because nurses are the forefront to influence quality care and creating partnerships with families
- we are all leaders; we lead education, advocacy and for saying what is right or wrong with data to support the changes
- teamwork is essential as every person with a different entity / skill is what positively makes the difference, for the health outcomes for the infants / family

So for almost 18 months now, I have been a full time student in addition to being a full time employee and Mum who has demonstrated **G R I T**. This acronym resonated fiercely for me and was described by another COINN conference speaker, Margaret Alve, who summed this up very nicely.

G – Groundedness = to remain focussed & centred, concentrating on the here & now.
R – Resilience = the ability to deal with adversity & bounce back quickly and easily.
I – Integrity = understanding our own beliefs & values & behaving in ways consistent with them.
T – Tenacity = having a passion, drive & determination to not give up despite the difficulties.

I strongly and personally believe that we can all enrich the experiences of families in our care by empowering families with trusted and inclusive relationships, clear communications, and supportive emotional needs in an environment that is appropriate to their needs. I urge you all to remain passionate and driven, whatever you determine your professional or personal goals to be.

Continued.

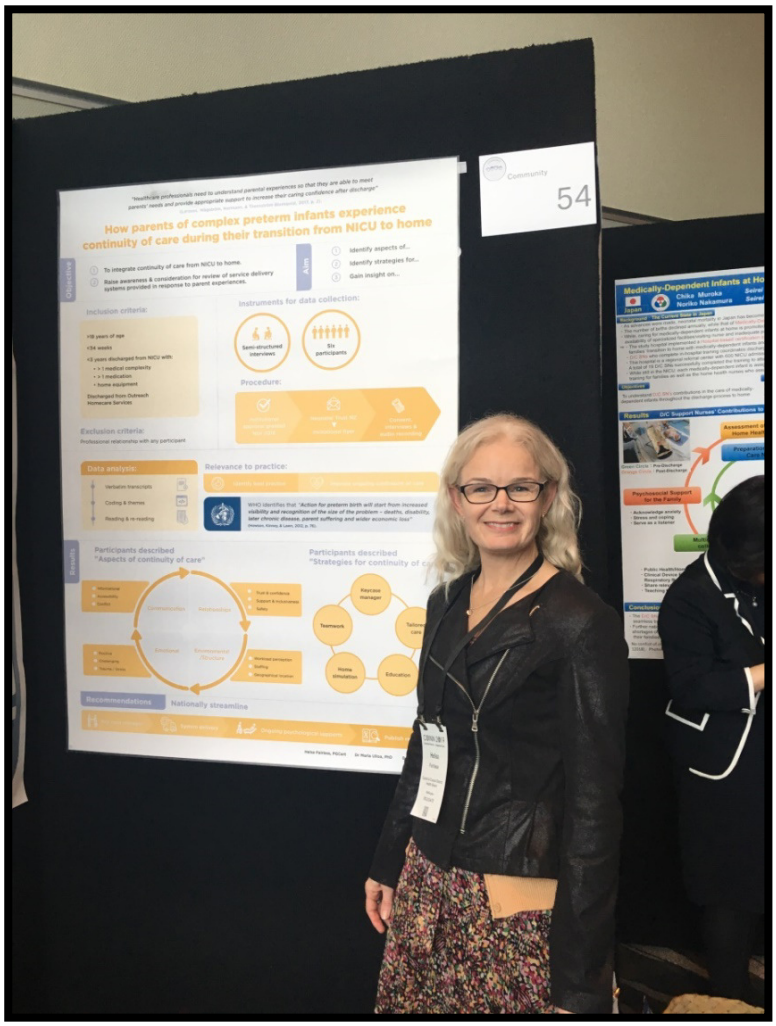
COINN Feedback

Helsa Fairless

What next:

1. Thesis submission for examination next month as the final draft is currently with my supervisors being reviewed.
2. I would love to share my research. It was really encouraging to reflect that whilst there is limited literature and a gap in the knowledge specific to continuity of care for complex infants, when transitioning from hospital to home, this has aligned with the academics, and in particular to those who attended and presented at COINN.
3. Publish with the support, guidance and dedication of my extraordinary supervisors.
4. An invitation to work alongside a project to possibly compare the continuity of care in two different contexts for the purpose of publication.

And while I wait for this, I am off on holidays to explore new destinations! I have attached a picture of my presentation poster for you all to see. I will also be placing it visibly somewhere in the NICU and would be very happy and proud to take you on my research journey as I shared with the Health Faculty last month. COINN reinforced that we can all have some **GRIT**. Without my academic whānau from Whitireia NZ and Dr Maria Ulloa and Belinda McGrath, none of this would have been possible and I am sincerely grateful.



COINN Feedback

Claire Annan

I have the privilege of attending the COINN conference to which I was amazingly funded for by NNCA, so to sum the conference up in a hash tag it would be #bestconferenceever!

Out in the foyer there were about 50-60 posters displaying research done, innovations implemented and data and statistics from different units around the world. There were a couple of posters by a NICU in Aberdeen, Scotland that caught my interest, it showed the process of change that a nurse unit manager (NUM) had implemented into her unit to allow family integrated care (FICare) to be at the forefront of change within the unit's culture.

I had a lengthy discussion with her about this process of change and how she had performed this. Having worked in Scotland myself, I know of the 'hierarchy' and 'oldschool' systems of the Scottish healthcare system. She discussed that she had attended the COINN conference in Vancouver in 2016 after becoming a NUM of the Aberdeen NICU and learnt about the importance of family centred care. Her background was from a haematology paediatric unit so the newness of a NICU environment was challenging to say in the lease.

The previous culture of the unit that parents were only allowed to visit within the hours of 1300-2100HRS only and the focus was on the 'baby' but without the 'parental' input to put it briefly. So what she brought back to the Aberdeen NICU from attending the COINN 2016 conference was an idea that was fresh faced, future thinking but not popular within some of the team.

However, she proceeded to implement the FICare values and practice, which eventually began to show results such as, increased parental confidence and working in partnership with cares, kangaroo (skin to skin) cuddles, parents being present at ward rounds, increased breastfeeding rates, reduced infection rates and decreased patients length of stay.

Continued.

COINN Feedback

Claire Annan

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Reflecting on neonatal care within N.Z., the benefits of being a 'young' country, brings the process of change that can happen quicker due to it not being stepped in history and hierarchal structures and policies like Scotland. It also made me proud to work not only in a country that promotes change but also in a unit that has been readily implementing family centred care for sometime now.

Lastly thinking about the process of change and how this is not easy in any working environment, even though N.Z. reflects up to date neonatal care, there are always things we can improve on where we need to change and we need to make sure our nursing culture encourages change, not hinder it.

The last statement she said was, even though she was over the other side of the world at COINN, she felt she could leave her team to continue and support FiCare without her as she had built a team of leaders and capable staff—this shows transformational leadership to it's core and the reality of what any nursing, let alone neonatal nursing should be inspiring to.

COINN Feedback

Michelle Robertson

With scholarship from the NZ Neonatal College I was fortunate to be able to attend the 2019 Conference of International Neonatal Nurses held in Auckland. With over 400 delegates from 21 countries attending, it was an exciting opportunity to meet, liaise and strengthen networks with colleagues from neonatal units across the country and hear stories from around the world. Five nurses from Hawkes Bay were also able to attend.

The COINN 2019 theme "enriched Family – enhanced care" was a way to recognise the contribution of families in the care of preterm and sick babies in Neonatal Intensive Care Units. Families are fundamental to every baby but especially to the NICU / Special Care baby and through enhancing and building on a family's strengths and resilience we will be in the best position to ensure the best possible outcome for these babies.

Dr Heidelise Als from Boston Children's Hospital was an impressive keynote speaker to begin proceedings. Dr Als is a well-regarded clinician and it was a privilege to hear this pioneer in the field of neurodevelopment speak. Her research about the effect of the NICU environment on the developing brain has shown the environment can have a negative impact on the developing brain. Dr Als team developed the NIDCAP programme that would protect the pre-term brain and support positive bonding behaviours. Core to this is that staff are well trained on the NIDCAP programme and this program should be embedded in every unit.

The program requires collaboration between family and staff - everyone must listen to the baby and we only have "one brain and it's for life". Themes such as gentle touch, intimate contact and quiet environment are central as every experience impacts on a baby's brain "future". As nurses we must protect and enhance these experiences.

This was nicely supported by a thought provoking session from Dr Simon Rowley and how we must maintain our humanity and compassion. We must not lose sight of why we are here and not let the pressure of productivity and cost savings get in the way. Always put yourself in their shoes and treat families as how they want to be treated – as opposed to treating people how you would want to be treated. It is a privileged and trusted position to be with families on their journey and we should never lose sight of that – be kind, be caring, be compassionate and always reflect.

Continued...

COINN Feedback

Michelle Robertson

Professor Dieter Wolke session discussed all the reasons why we must protect the brain and empower families. His presentation was on the results of the Bavaria Longitudinal Study. This study followed preterm infants from birth to adulthood. Children born very preterm had significantly more attention problems, shorter attention span, and were more frequently diagnosed with ADHD than term-born infants. IQ was lower, they had more cognitive issues, more anxiety and depression and less likely to have a higher education. They were less likely to have a "romantic" relationship but did have good relationships with their parents. Although there has been great advances in physical outcomes and survival rates there has been little progress in ensuring good brain development. It reinforced that as nurses we must continue to advocate for these babies and always care for them in the context of their family.

Concurrent sessions run were strategically placed in the programme to build on the Key note speaker themes. Abbey Eeles, a Neonatal Occupational Therapist, session on "Handling techniques to conserve energy during care giving" was a practical session showing that making small changes in our practice we can make a big difference. Nurses as "attachers" was an apt term used to reinforce our role in facilitating bonding and ensure a healthy attachment with a baby's family.

Day 2

The Neuroscience of Nurture in the NICU presented by Rayleen Philips focused on maximizing skin to skin and thus supporting a babys emotional bond with their mother. Unlike term babies and other baby animals preterm infants are separated from their mother adding to their stress. Babies are right brain dominant therefore at birth need tactile relationships to regulate themselves - essentially this is and should be their mother.

Studies show babies stabilize better with skin to skin than in an incubator and benefits both mother and baby - prolongs breast feeding rates, increases antibodies in mothers' milk, better thermoregulation and decrease LOS. The seven Core Measures of Neuroprotective Family-Centered Developmental Care has been identified as – healing environment, partnering with families, positioning and handling, safeguarding sleep, minimizing stress and should all be core to care provided by staff.

Staff motivation/resistance can be a barrier and it is vital that neuroprotective education for staff is seen as core to professional development of the neonatal nurse.

Continued...

COINN Feedback

Michelle Robertson

What we should do – Welcome parents daily to be at the baby's bedside. Encourage time just to be with their baby, support kangaroo care and empower them to do cares – "to be a parent". Teach infant massage, discuss the risk of PTSD and depression and provide resources for professional help and support. There are very few reasons to stop a baby having kangaroo care, even while on respiratory support – nurses need to support this and be the enabler.

Day 3
Margaret Alve spoke about resilience in ourselves and to care for ourselves. Nurses should focus on ways to "nurture" ourselves.

The artificial uterus presented by Dr Max Berry was a look into the future. What lies ahead for NICU's? Very interesting – scary – and – really are we going to go there.

This is just a brief summary of some of the presentations. The standard of the speakers was high and attending an international conference was an invaluable opportunity - not only to broaden knowledge but also to keep abreast of trends. The programe was well thought out and flowed well.

Thank you to the college for supporting me to attend .

Michelle Robertson
5 – 8th May 2019 - Auckland
"Enriched Family – enhanced care"

COINN Feedback

Louisa Langford

"One brain for life- all experiences matter"

During the COINN conference, I was fortunate enough to experience lectures and interactive sessions taught by a number of fantastic health care professionals and family members. Although there are a many lectures that I could write about, I found one to be particularly impactive; listening to the work of Dr. Heidelise Als.

She introduced her session by discussing the brain anatomy of a premature infant and highlighted the importance of the frontal lobe, with regard to processing sensory information. A premature brain does not have the capacity to 'make sense' of living experiences and as we know, this can be incredibly detrimental to an infant's long term outcome. For example, poor experiences in the early stages of preterm life can negatively impact infant bonding, coping mechanisms, relationship building and long term mental health.

Als discussed the importance of neurodevelopment with regard to premature infant care and introduced the term 'NIDCAP'. NIDCPAP stands for 'Newborn Individualised Developmental Care and Assessment Program', and is a program which she and her team have been pioneering since 1984. NIDCAP strives to create a supportive, gentle environment for fragile, premature infants and encompasses infant led, family integrated care.

She enlightened us with research data and emphasized the dramatic correlation that the program has had with regard to improved infant outcomes, including reductions in infant ventilation time, chronic lung disease and hospital stay. Further, she highlighted improvements noted with regard to white matter development within the brain (found through MRI imaging), breast feeding rates, parent/infant bonding and reduced family stress (to name a few).

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Continued...

COINN Feedback

Louisa Langford

I found the session to be captivating and believe that by the end of the presentation, we were all energized and excited at the idea of role modeling NIDCAP values, as the care that we provide on a daily basis in NICU, can truly mold the brains of infants and impact their long term health outcome.

Als finished with a quote which seemingly wrapped up her presentation in a perfect little bow, and is something that I will keep in my mind every day, when caring for babies in NICU;

“One brain for life- all experiences matter”

- Claudine Amiel-Tison

Louisa Langford

COINN Feedback

Sarah Torrington

Hi my name is Sarah Torrington and I am a staff nurse and flight nurse at Wellington NICU. I was granted the generous scholarship from NNCA to attend this year's COINN conference. Please read below a small snippet of the exciting information I absorbed during my time there. I would like to extend my thanks to those involved in the scholarship selection process, it was a privilege to have attended.

I was lucky enough to be able to attend the COINN conference 2019 in Auckland at the beginning of May. What an amazing opportunity to see Neonatal Care on a worldwide platform. Rubbing shoulders with Neonatal staff from across the globe sharing their research and Clinical achievements. So many exciting topics on offer it was a difficult decision what plenary session to attend next. Understanding Neonatal care as practiced in other countries made me feel extremely fortunate to be able to practice in a country where care is not limited to the wealthy city dwellers. Seeing the progression of care delivery due to the education being provided to these less fortunate countries, and the outstanding outcomes being achieved was phenomenal. I came away from the conference feeling inspired to participate in some form of research and perhaps even further my education by completing some post graduate papers.

A session that resonated with me was Sheeja Pathrose's presentation on "current practices for gastric residual aspiration in Australian Neonatal units"
This is a topic that is often widely debated amongst the nursing and Medical staff with us very rarely coming to a conclusion. I hope by sharing some of these findings with you it may open the discussion and aid in implementing a more specific pathway when dealing with gastric aspirates in your unit.

The Aim of this study was to explore current practices related to gastric residual aspiration in Australian special care nurseries and neonatal intensive care units. It is a known common practice in neonatal units that prior to each tube feed clinicians evaluate for signs of feed intolerance and NEC. Monitoring of gastric residuals have been regarded as a major indicator of feed intolerance, but the usefulness of gastric aspiration had been poorly researched. This practice varies worldwide.

The study explored 6 common indicators to decrease or stop the infants feeds, topping the list was gastric residual characteristics and abdominal exam.

Continued...

COINN Feedback

Sarah Torrington

62 % practised prefeed gastric aspirates every 6 hours with a small percentage 9 % aspirating prior to every feed. There was noted variations to this based on previous large gastric aspirates and the general health of the infant. Feeds were decreased or stopped based on quantities of aspirate but again no set rule surrounding this guideline was discovered. Colour of the aspirate also was taken into consideration when evaluating gastric aspirates with feeds decreased or stopped with aspirates ranging in colour from wasabi green through to brown and bloody. Yet again no concise guideline found.

Notable discussion topics and recommendations from previous studies:

RM Torrazza 2015 RCT

Infants without regular GR evaluation reached feeds of 150ml/kg/day 6 days earlier and had 6 fewer days with central venous access.

Mihatsch 2002 Evaluative design

Mean GRV and green colour aspirate did not have significance in the absence of clinical sign.

Recommendations from this study suggest:

Develop and implement best practice guidelines to improve the tube feeding practices.

Establish a platform to educate health care providers, patients, and patients family members who need to manage this procedure outside of the acute care environment.

I can see further studies are definitely indicated in this area. Establishing best practice guidelines are well overdue. With overall goals to optimise feed tolerance and decrease total days of parental nutrition. I believe this could significantly decrease hospital admission lengths for our Neonates.

If you ever have the opportunity to attend a COINN conference please make it a priority to do so, it has been a career highlight for me.

Sarah Torrington

Wellington NICU

COINN Feedback

Shirley Wilson

For 3 days over 400 nurses from 21 countries gathered to celebrate our profession, share our knowledge, learn, laugh, eat and drink together. It was a time to be inspired and confronted. In many ways this conference was a celebration of what we do and what we do well but also of what we could do better – for babies, families and ourselves.

My first lesson was a change in language, from providing "neurodevelopmental care" to providing/promoting "neuroprotective care". Protecting the preterm brain is a family and staff collaboration (Als 2019)

During Als first key note presentation I was captivated by this remarkable, energetic, passionate, pioneering woman! The core of her presentation was the development of the preterm brain; understanding the language of the baby and the continuous interplay of systems. The relationship between touch/containment/feeding/quietness. The concept that the developing brain is enhanced by experience, yet mediated by calmness and comfort. Als has challenged me to "listen to the voice of each new-born baby and each family"; to see the mother's body/breast as her baby's environment and that "kangaroo care" is not just a nice thing to do, it is essential for neurodevelopmental growth and development.

I was and still am, confronted yet fascinated by Max Berry's presentation on "The Artificial Uterus". What was once science fiction now appearing to be a reality in the laboratory. I was challenged by images of a foetal preterm lamb being nourished in this artificial environment. In one image an obviously foetal lamb, the next – taken several weeks later - shows a lamb covered in wool with well defined "lamb" features. This artificial environment has provided nourishment for growth, it has sustained life; but without "nurturing" and to what cost? I continue to be conflicted by the ethical dilemmas of what we do, but spellbound by scientific achievements. But the question still remains: Just because we can, should we?

Thank you NNCA for supporting my attendance at COINN 2019. I am proud to be a member of NNCA and of COINN. I am proud of my fellow colleagues and I am proud to be a very small part of what we achieve as a Neonatal Community in New Zealand.

Shirley Wilson
Clinical Charge Nurse
Newborn Intensive care Unit
Starship Child Health

COINN Feedback

Grace Pinpin

COINN 2019
Enriched Family – Enhanced Care
5-8 May 2019, Auckland, New Zealand

Handling Techniques to Conserve Energy During Care Giving

Why would we consider modifying our handling technique?

From 26 weeks to 40 weeks, the premature baby's brain increases in size by 400%. Even at 34 weeks, their brain only weighs 65% of its weight at term age. They have difficulty processing multiple stimulations all at once. Their system is also not mature enough to meet the demands of the care giving activities we expose them to. So, we're working with vulnerable premature infants, and it is important to consider the way we provide care and find a delicate balance of providing these activities that are stressful for them and doing them in a way that is going to support their developing brain.

What are we trying to achieve in modifying our handling technique?

Firstly, it is difficult for premature babies to reach that quiet-alert state and be able to sustain it. There is mutual interplay of their systems (synaptic organisation) that can either be supported or challenged by the environment in the way we provide care. It is through supporting the autonomic and motor systems that the baby will be able to get into that more quiet-alert state. And when they're in that, they're taking information from the outside world and able to visually engage with their parents which helps in the bonding and attachment process.

How are we going to do that?

These techniques are always applied in accordance to what that baby is communicating and depends on what the baby is telling us at any given moment. It needs a continuous back and forth communication with the baby.

Flexed Posture

Premature babies generally have lower muscle tone. It is very difficult for them to get into the flexed posture by themselves without any external support. We provide postural support to assist the organisation of their motor system by bringing the baby into the flexed posture. Supporting the shoulders and orientating their limbs to midline help organise the central nervous system. It helps support their self-regulation skills – hands together, hands to face, hands to mouth. This can be as simple as swaddling their upper limbs while doing the nappy change.

Continued...

COINN Feedback

Grace Pinpin

Side-lying Position

It is difficult for babies to fight gravity due to their lower tone and get into a disorganised state with their motor systems when they are side-lying. Gravity supports everything to midline. As soon as we put babies on their side when we do handling, we support their self-regulation – hands together, and hands to face.

Consistent, Predictable Touch

Babies have difficulty differentiating pain and normal human touch until about 35 weeks gestation. Their brain does not have the necessary pathways and development to be able to perceive that touch in a nurturing way. We need to prepare the baby for the touch and talk to them, starting with a still touch. As much as possible when doing handling, always have one hand in contact with the baby all the time. It can be difficult and tricky, but it is through consistent touch that the central nervous system registers that touch process. The four-hand caregiving involves a parent or another nurse available providing consistent touch.

Providing Boundaries Throughout Movement

When we lift the baby out of a cot, we need to consider that distance and movement. For a preterm baby, that's movement that they need to process. To support the vestibular system throughout the distance, we need to use our body as a boundary. If the baby is not swaddled, bring your body down, your chest in contact with the baby, then bring the baby up that way. Throughout that movement, the baby has been given boundaries and containment, supporting their motor system organisation, and their state.

> *The **vestibular** **system** is a complex sensorimotor system responsible for detection of motion and position of the head and body, motor responses, multisensory integration, and higher-level cognitive-perceptual functions (https://www.sciencedirect.com/topics/neuroscience/vestibular-system).*

The Swaddled Practice (in bath and weighing)

In the swaddled practice, the premature infants have decreased physiological and motor stress, have energy conservation, improved state control, decreased crying and agitation. The fewer stress signs seen on a baby has a big impact on parent involvement. In swaddling babies compared to routine bathing, parents have increased confidence in their parenting skills which assists in the attachment and parent interaction, improved understanding of the baby's needs, and reduced parental stress because the baby is more on the quiet-alert state.

Continued...

COINN Feedback

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When a baby is crying during a bath, everyone gets flustered and we tend to rush things to get through it.

It is also recommended to swaddle baby in weighing to support the motor system.

Videos

A video was shown during the talk redressing the baby while on their side: While talking to the baby, the nurse got the baby on his side with a hand holding the baby in midline. The baby's fingers started splaying, responding to the touch, but not becoming disorganised due to the position supporting him in flexion. Every time there's a movement, in terms of that tactile processing, we can see a slight grimace but because of all the external support to the motor system, the baby comes back to a calm state, looking up at the carer with hands to face, providing an opportunity for the nurse to speak and engage.

A comparison video was shown where a baby was not swaddled in bathing: baby was crying, there was so much disorganisation and stress cues going on. In contrast, in a video on swaddled bathing: the baby's state and motor cues are responding to the changes in temperature and environment as he was being immersed in water. The baby's stress cues were fluctuating – coming back to a calm, alert state and continually self-regulating. With the nurse talking to the baby, asking for permission if OK to continue, asking how he was doing. In undoing the swaddle from the legs up, the bottom of the tub was used to provide bracing for boundary.

Study Result

A study looking at the reduced stress response was dependent on the level of support that the nurse gave to the baby. Examples of these support are gentle touch, grasping, postural support and containment. The result of the study showed that as the level of support increased, the stress for that baby decreased. And we know that reduced stress supports a baby's brain development.

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NNCA Professional Development Grant

Approx Amount Available: Up to $10 000 total.

The *maximum* scholarship will be $1000 per person at the discretion of the NNCA Executive Committee.

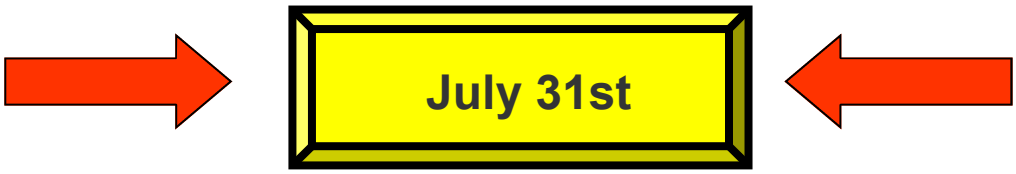
Eligibility: Applicants must be a full member of NNCA for 12 months.

Criteria: Courses, seminars, conferences or projects relating to neonatal nursing. Priority will be given to nurses embarking on research or writing for a peer reviewed journal.

Applications must be received on the correct application forms.

Applicants receiving funding from NNCA will be expected to contribute to the Newsletter or the annual Conference.

Next Application date:



Application forms can be found on the NNCA website for funding opportunities.

Send applications to –

Scholarships & Grants - NNCA Administrator
NZNO National Office
Level 3, Willbank Court,
57 Willis Street
PO Box 2128,
Wellington 6140
Fax: 04 382 9993
E-mail: sally.chapman@nzno.org.nz

What's happening in your back yard??

I invite Neonatal Intensive Care and Special Care Units from around New Zealand to share local news… (articles accepted NOW!)

FOR THE NEWSLETTER…

Submissions gratefully received!

- Use Word Format please
- Up to 500 words
- **Arial Size 12 font**
- Pictures tell a 1000 words
- Does NOT have to be academic writing—just great reading!
- Publishing deadline 31 August 2019
- Send your work to: sally.chapman@nzno.org.nz
  for the next Edition. Sally is our NNCA administrator.
  (*Thanks Sally!*)
- ***Just Do It!!***