



Priorities for Practice & Research in Paediatric Infection Prevention & Control

Gemma L Saravanos, Claire Nayda, Sandra Charlton, Fiona Gotterson & Marilyn Cruickshank in collaboration with panel members Amanda Ullman, Mataya Kilpatrick & Clare Davies

Acknowledgement of Country

We would like to acknowledge the Aboriginal and Torres Strait Islander Peoples. We give thanks to those of Kulin Nation where we meet today and extend this respect to First Nations Peoples across the globe.

**Together we touch the ground of the land.
We reach for the sky that covers the land.
And we touch our hearts to care for the land.**

Adapted from the words and actions shared on Play School and created by Aunty Tracey Linn Bostock – a descendant of the Bundjalung Nation.

https://www.abc.net.au/abcforkids/content/images/Play_School_Acknowledgement_of_Country_Educator_Notes.pdf



Icebreaker Activity with Captain Starlight...





Panel Members & Moderators



**Panel Member 1: Ms Mataya
Kilpatrick**

School of Nursing and Midwifery
at Deakin University



**Panel Member 2: Professor
Amanda Ullman**

Children's Health Queensland and
The University of Queensland



Panel Member 3: Dr Clare Davies

Susan Wakil School of Nursing
and Midwifery at University of
Sydney



Chair: Dr Gemma Saravanos

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Sydney



Moderator: Ms Claire Nayda

Children's Hospital at Westmead,
Sydney Children's Hospital
Network



Moderator: Professor Lisa Hall

The University of Queensland

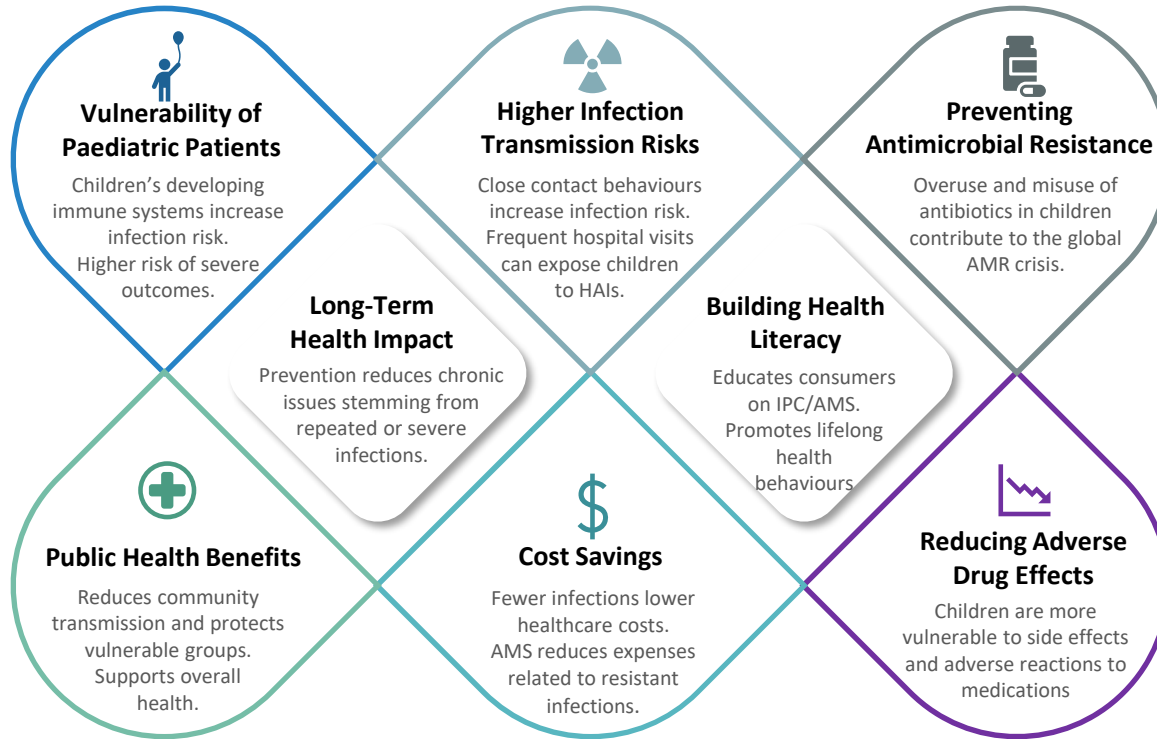


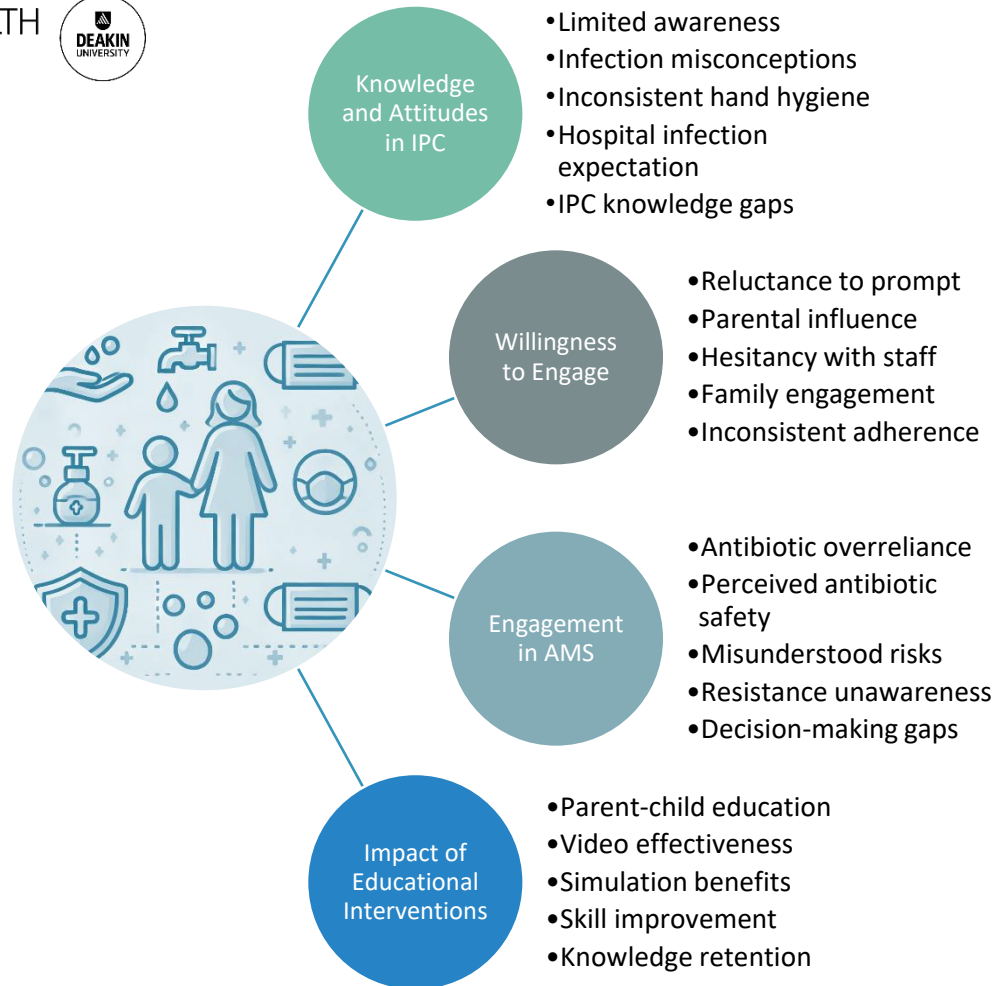
Paediatric IPC and Antimicrobial Stewardship

Fostering Awareness, Preventing Infections: A Family-Centred Approach

Mataya Kilpatrick DipN, BN(Hons), GradCertIPC, GradCertHEd, FHEA









Advocating for their Child

- I've had to learn to use wording that I know will work to get my point across rather than just sounding like a whinging mum...She needs antibiotics, you know please do a swab. I don't know what would be the trigger that would get a doctor to really listen and know that a parent knows a child isn't well. (P12)

Overwhelmed by Information

- There's sometimes there's some confusion, but that's just because we're, well I'm a lay man. Some of the things are just like uh... I think it's more just because we're tired and there's a lot of information to take in. (P8)

Worries about HAIs

- Just that my only concern [about infections while he's in hospital] was that he would end up getting a worse infection being in hospital, with MRSA or whatever?...I think because that's where you get those sorts of things from hospitals. (P4)
- It's like trying to make sure that I don't get carried away in my own head, because there's a lot of hours sitting here, I do get concerned that we are unwell, so we are here. There's other people that are unwell, and they're here. So how much of that is the sort of contagious conditions that could affect [my child]. (P7)

Views on AMS

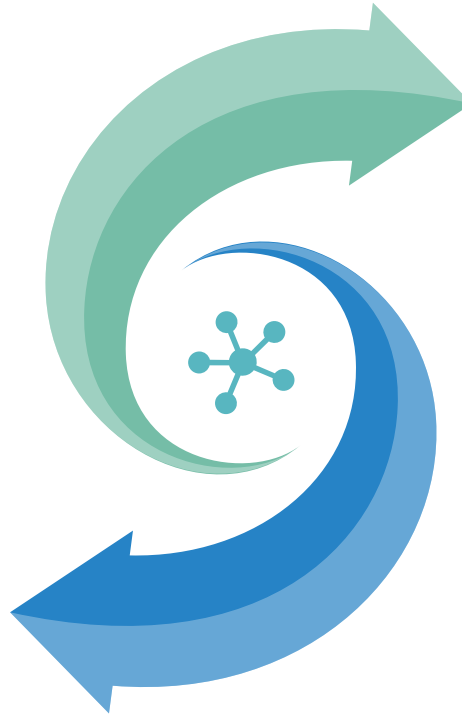
- I don't [have concerns about antibiotic resistance]. I mean, it's what's been studied through science. So, if it's [antibiotic] there, why not use it? You can take time to get well, but I think sometimes, with a little bit of support, you can get well faster. I don't really see a major need for concern. I mean, the only concern is over time, like when you don't finish your dose. (P2)
- Eventually, the effectiveness of the antibiotics is reduced. Antibiotics [are] very necessary. It is very necessary. What else? How else can you stop the infection if you don't use antibiotics. (P1)





Current Strengths

- National Guidelines
- Trust with Healthcare Teams
- Growing Awareness in Families
- Supportive Physical Environment for IPC
- Growing Institutional Focus on AMS
- Educational Resources Tailored for Families



Future Priorities

- Empowering Parents as Partners
- Encouraging Open Communication
- Modelling Infection Prevention Behaviours
- Addressing Misconceptions About Antibiotics
- Supporting Emotional Wellbeing of Families
- Encouraging Family Advocacy



Thank You



Testing technologies: Reducing IV access associated harm across paediatrics

Professor Amanda Ullman

Professor and Chair in Paediatric
Nursing

The University of Queensland

Children's Health Queensland Hospital
and Health Service



RCT: Midline Compared With Peripheral Intravenous Catheters for Therapy of 4 Days or Longer in Pediatric Patients

POPULATION

71 Male, 56 Female



Patients aged 1-18 y requiring peripherally compatible intravenous therapy for ≥ 4 d

Median (IQR), 7 (2-13) y

SETTINGS / LOCATIONS



1 Hospital in Australia

INTERVENTION

128 Patients randomized



62 Midline catheter
size 3F or 4F



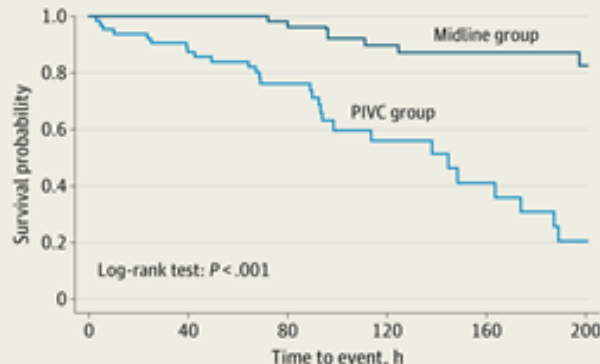
65 Peripheral intravenous catheter (PIVC)
gauges (24, 22, 20) and in lengths (standard or long)

PRIMARY OUTCOME

All-cause device failure, defined as cessation of vascular access device function

FINDINGS

Device failure was significantly lower in midline catheters (10 [16%]) compared with PIVCs (30 [46%])



Midline catheter and PIVC between-group difference:
odds ratio, 0.22; 95% CI, 0.10-0.52; $P < .001$

RCT: Effect of Novel Peripheral Intravenous Catheter Securement for Children to Prevent Catheter Failure

POPULATION

189 Males, 194 Females



Children in emergency departments (EDs) anticipated to require both a peripheral intravenous catheter (PIVC) and admission to hospital for >24 hours

Median age, 36 mo

SETTINGS / LOCATIONS

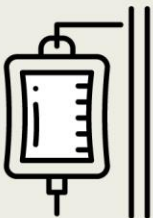


2 regional hospitals in Queensland, Australia

INTERVENTION

402 Patients randomized

383 Patients analyzed



134 Standard care

Application of a bordered polyurethane dressing over the PIVC

118 Integrated securement dressings (ISD)

Application of an ISD with variable sizes over a PIVC

131 ISD with tissue adhesive (TA)

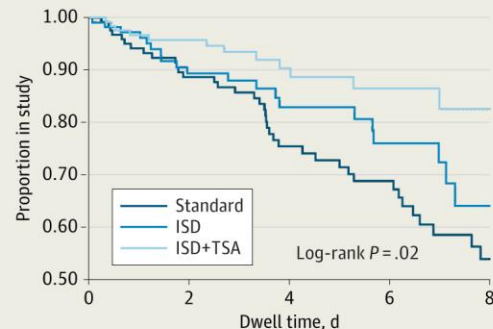
Use of TA at PIVC site and hub prior to integrated securement dressing

PRIMARY OUTCOME

The primary outcome was PIVC failure, defined as unplanned PIVC removal where PIVC reinsertion was required

FINDINGS

PIVC failure was lowest in ISD with TA group compared with ISD and standard care.



43 Of 134 patients had PIVC failure; IRR reference
24 Of 118 patients had PIVC failure; IRR, 0.80; 95% CI, 0.47-1.35
15 Of 131 patients had PIVC failure; IRR, 0.45; 95% CI, 0.23-0.84

RCT: Securement to Prevent Noncuffed Central Venous Catheter Dislodgement in Pediatrics

POPULATION

175 Boys, 135 Girls



Children aged 0-18 y requiring insertion of noncuffed central venous catheter

Median (IQR) age, 48 (16-120) mo

SETTINGS / LOCATIONS



2 Pediatric quaternary hospitals in Australia

INTERVENTION

310 Patients randomized



155 Subcutaneous anchor securement system (SASS)

Catheter stabilized at point of insertion by blunt, flexible, nitinol feet inserted subcutaneously



155 Sutureless securement device (SSD)

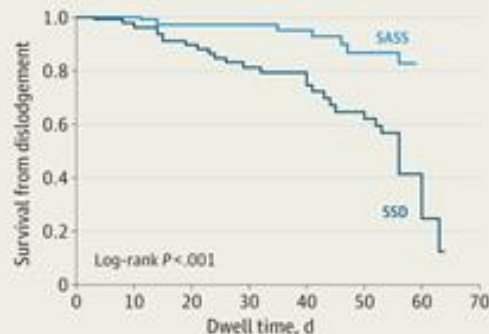
Adhesive footplate affixed to the skin with plastic locking clasps to hold catheter in place

PRIMARY OUTCOME

Dislodgement, defined as movement of the catheter tip by >1 cm (change in external catheter length) during catheter dwell, including both partial and total dislodgement

FINDINGS

A statistically significant reduction in catheter dislodgement occurred when catheters were secured with SASS compared with SSD



SASS: 8 dislodgements/153 patients (5.2%)

SSD: 35 dislodgements/154 patients (22.7%)

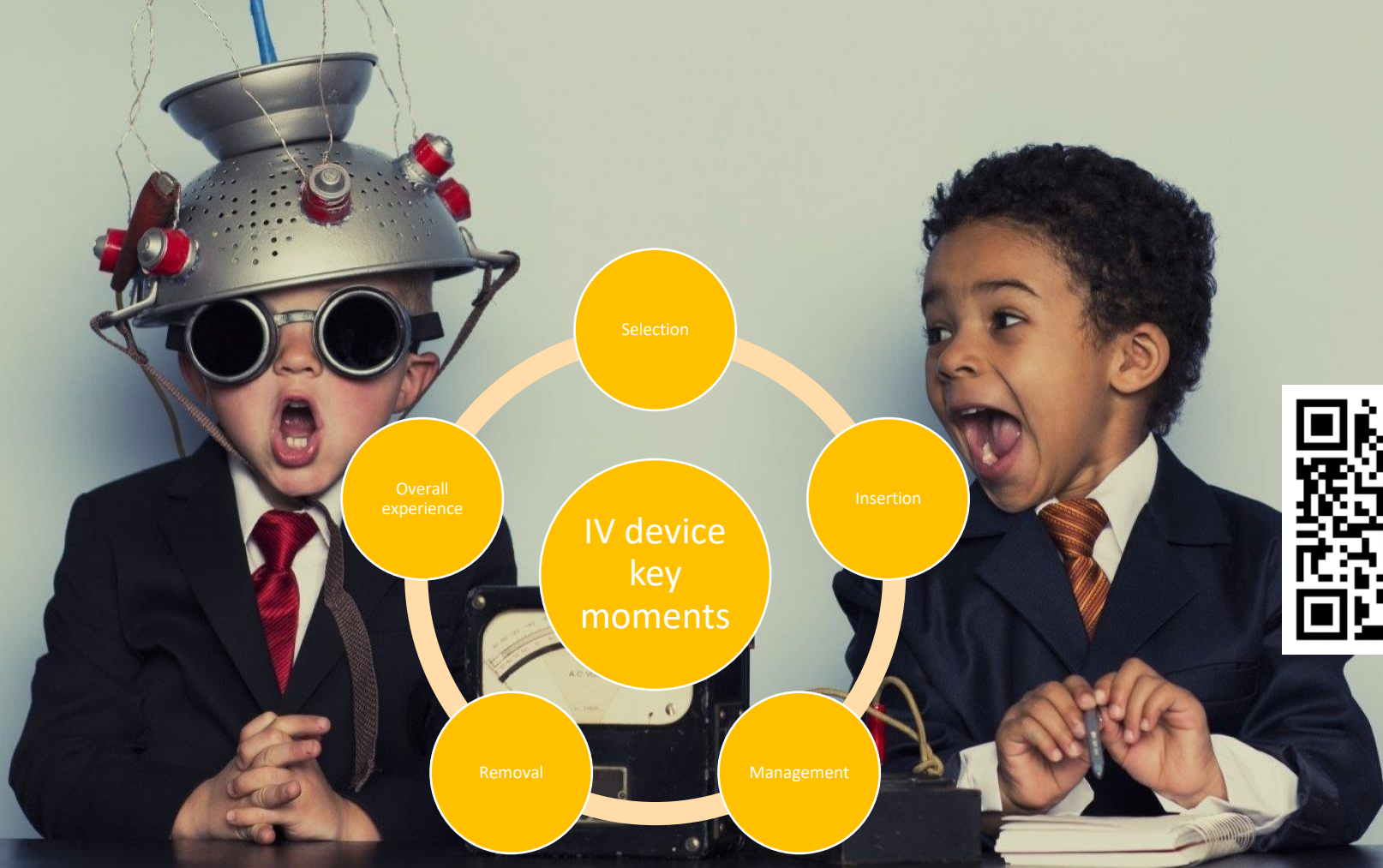
Risk ratio, 0.23; 95% CI, 0.11-0.48; $P < .001$

Aim

To improve experience and outcomes for people relying on long term, IV-dependent treatment.

This was accomplished by partnering with consumers to implement best IV planning and management via the development of an IV Passport.





Listening to children's voices through research

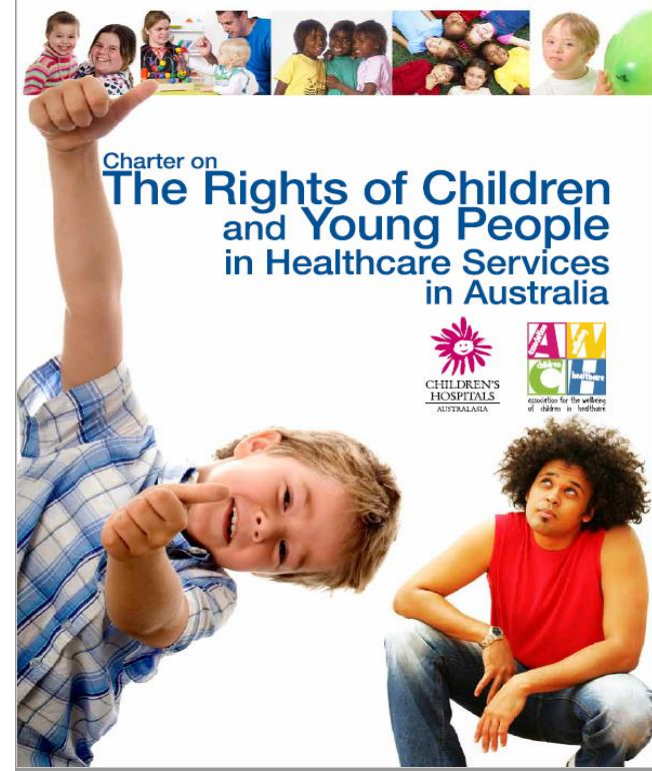
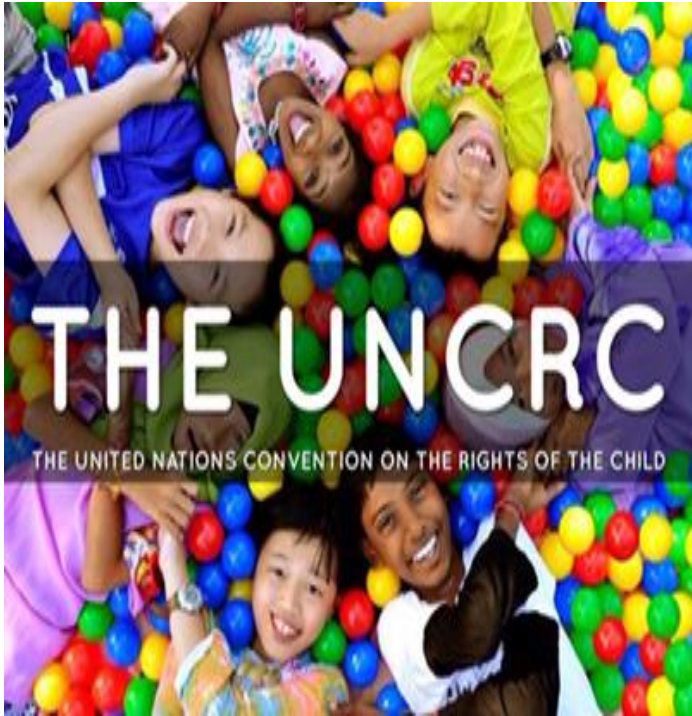
Dr Clare Davies

The University of Sydney



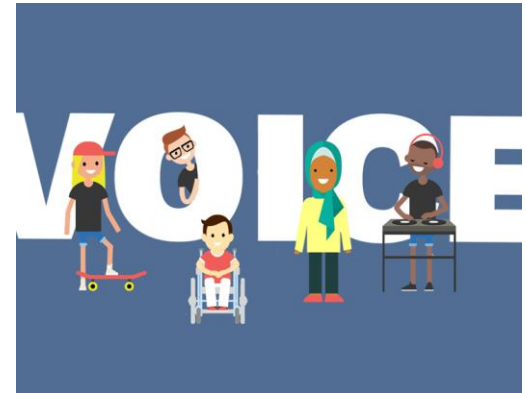
THE UNIVERSITY OF
SYDNEY





Article 12

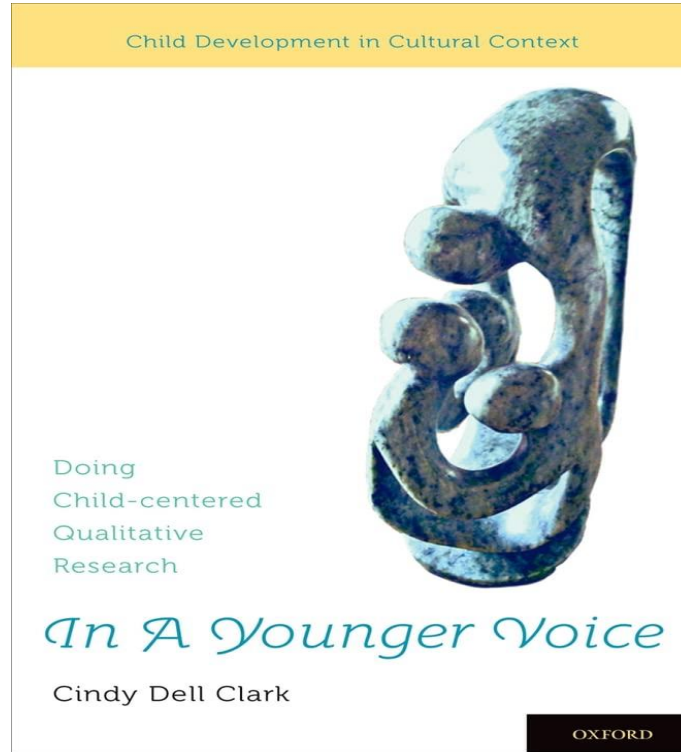
“States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.”



Listening to children's voices through research

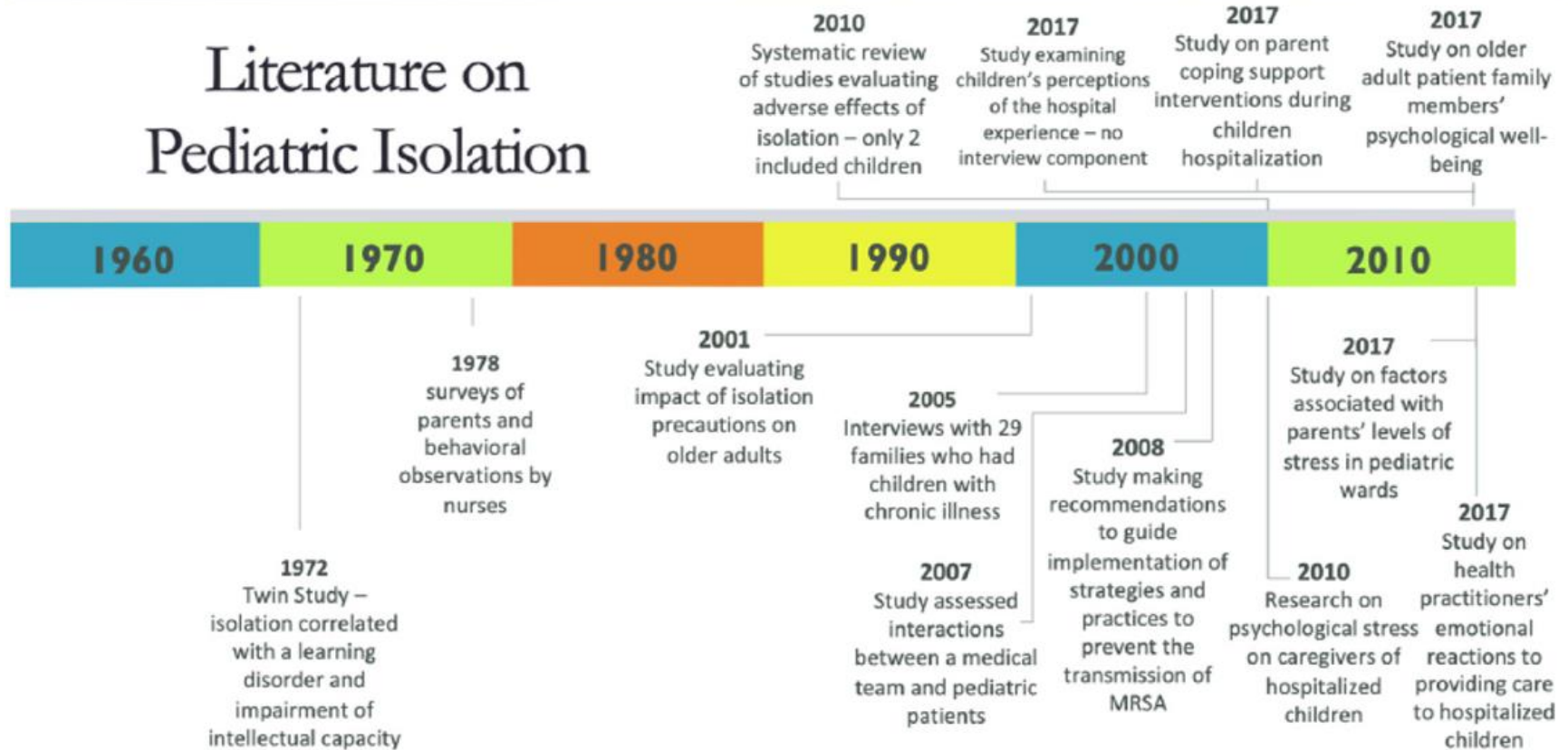


Child-centred Qualitative Research



Clark, C.D (2011) *In a younger voice: doing child-centered qualitative research*, Oxford University Press

Literature on Pediatric Isolation



Alvarez, E. N., Pike, M. C., & Godwin, H. (2020). Children’s and parents’ views on hospital contact isolation: A qualitative study to highlight children’s perspectives. *Clinical Child Psychology and Psychiatry*, 25(2), 401–418.

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Panel Discussion

1. Implementation
2. Balancing risks
3. Governance
4. Future

Join the discussion on Mentimeter...

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- or join at [menti.com](https://www.menti.com) code 3542 3954



Acknowledgements



ACIPC Paediatric SIG representatives from:

- The Sydney Children's Hospital Network
- Hunter New England Kids Health Local Health District (NSW)
- Queensland Children's Hospital
- Women's and Children's Hospital (Adelaide)
- Royal Children's Hospital (Melbourne)
- Perth Children's Hospital
- Faculty of Medicine & Health, The University of Sydney

Our invited panel speakers

- Professor Amanda Ulman - The University of Queensland
- Ms Mataya Kilpatrick - Deakin University
- Dr Clare Davies - Faculty of Medicine & Health, The University of Sydney

Captain Starlight – Starlight Children's Foundation



Government of South Australia
Women's and Children's
Health Network



Women's
& Children's
Hospital



INSTITUTE FOR HEALTH
TRANSFORMATION



Paediatric



SIG Special
Interest
Group



Thank you and stay
tuned for more
paediatric-focused
IPC from the ACIPC
Paediatric SIG!

