

Nursing Research and Practice Development Centre

The Prince Charles Hospital Australian Catholic University



ANNUAL RESEARCH REPORT 2018

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Contents

- 02 Welcome
- 03 Messages
- 04 Introduction
- 05 Personnel
- 06 Steering Committee
- 06 TPCH and ACU Partnership Representatives
- **08** Visiting Researchers
- **09** Associate Researchers
- **10** Post Graduate Research Students
- 11 Research Projects
- 21 Publications
- 22 Research Ethics Approvals
- 23 Conference Presentations

Welcome



Professor Paul Fulbrook

Nursing Director Research & Practice Development

On behalf of The Prince Charles Hospital (TPCH) and Australian Catholic University (ACU) Nursing Research and Practice Development Centre (NRPDC), welcome to our 2018 Annual Research Report.

This report provides information about the NRPDC research activities during 2018. It includes information about our many and varied research projects and research outputs, and acknowledges our affiliated clinicians and research students.

The Centre is now well-established, which is demonstrated by its significant research activity, publication output in peer-reviewed journals, successful research grant income, and national and international conference outputs. In 2018, the NRPDC employed two part-time research fellows and one full-time research assistant. All positions were jointly funded between TPCH and ACU. The NRPDC has also facilitated several visiting researchers from ACU, who have been involved with TPCH staff on a variety of projects. Their collaboration provides support to TPCH staff with potential and ongoing research projects, and strengthens the research training environment within both organisations. Other users of the NRPDC include ACU higher degree research students, of which the large majority is nursing staff employed within the hospital. Several of these higher degree research students have graduated in 2018. The students are supported via the NRPDC and have on-site access to their supervisors, office facilities and research equipment.

As noted above, publication output from the NRPDC has been excellent, with many colleagues contributing to peer-reviewed publications in high quality Q1-ranked journals.

The NRPDC nursing research priorities are established annually and are embedded within the NRPDC Strategic Plan 2018-2020, which is negotiated jointly between TPCH and ACU. The NRPDC Strategic Plan performance indicators are consistent with key objectives identified in the Metro North Hospital and Health Service Strategic Plan (2016-2020), as well as ACU's Research Indicators.

Pressure injury prevention and management is our main research area, and is where most of our research activity has been focused this year. In this context, key members of the research team were awarded the prestigious Wounds Australia/3M Skin Safety award for the hospital's skin integrity program.

The NRPDC research priority is aligned with the Australian Council on Healthcare Standards, National Safety and Quality Health Service (NSQHS) Standard 8 (Preventing and Managing Pressure Injuries). NRPDC research activity within this priority area has been very productive in 2018.

The continuing hard work of the NRPDC staff, and the collaborations formed with clinician-researchers, have contributed significantly to our ability to conduct clinically relevant research. Although most of our research has been nurse-led, we have developed productive collaborative research partnerships with several other professional disciplines and organisations.

Messages



Clinical Associate Professor Cherie Franks

Director of Nursing

Nursing Services

The Prince Charles Hospital

The collaboration between The Prince Charles Hospital (TPCH) and Australian Catholic University began with the opening of the Nursing Research and Practice Development Centre (NRPDC), and is now eight years strong and continues to grow and strengthen each year.

Research is a fundamental element of professional nursing practice and the NRPDC offers nurses the opportunity to increase their level of knowledge by participating in its mentoring and scholarship programs, enrolling in master's and doctoral research programs and a range of research activities to advance their clinical practice and improve patient outcomes.

The ongoing contribution of TPCH nursing staff to deliver evidence based care is always impressive. This year one of the notable achievements to highlight is that the Skin Integrity Program, a collaboration between TPCH's NRPDC, Wound/ Stoma Service and the Quality Effectiveness Service Team (QuEST) won a national accolade in wound care, and were awarded the National 3M Australian New Zealand Skin Safety Award at the Wounds Australia Conference in Adelaide. The program was granted this award because of its noteworthy contributions to improving wound care and pressure injury prevention at TPCH through a collaborative and multifaceted program of research, education and practice.

I would personally like to acknowledge and thank the NRPDC team led by Professor Paul Fulbrook and our staff for these achievements that are highlighted within the impressive annual report. If you have an interest in further developing your knowledge or undertaking nursing research please contact Prof Paul Fulbrook and the team for some advice.

Thank you to all for your ongoing commitment to nursing research.



Professor Michelle Campbell

Executive Dean

Faculty of Health Sciences

Australian Catholic University

The Nursing Research and Practice Development Centre continues to foster change through research. It gives me great pleasure to provide a foreword to the Annual Report that reflects on our achievements in 2018.

Our nurse-led research team, comprised of nurse leaders from The Prince Charles Hospital (TPCH) and Australian Catholic University's (ACU) School of Nursing, Midwifery and Paramedicine within the Faculty of Health Sciences, continues to make an impact by implementing evidencebased practice that contributes to improved clinical outcomes. Several of our honours and higher degree research students are undertaking a variety of projects in our research priority area of pressure injury prevention.

Our collaboration has strengthened our growing research agenda and advanced ACU's commitment to supporting vital research. We have a number of staff who continue to benefit from our partnership through honorary appointments as visiting researchers within the Centre.

In the latest Excellence in Research for Australia (ERA) assessment, we received the top score of well above world standard for research in nursing, as well as in cardiorespiratory medicine and haematology, clinical sciences, cognitive sciences, human movement and sports science, nutrition and dietetics, psychology, and public health and health services. ACU is also recognised globally as a leader in a range of subject specialisations; it is ranked 7th in sport science in Australia and 26th globally, and 41st in the world for nursing.

ACU's Faculty of Health Sciences works to prepare highly skilled graduates who provide quality health care for vulnerable communities.

I hope you enjoy reading this report as it is a testimony of our shared vision and commitment to quality research.



Introduction

About

The NRPDC was founded in 2010, to foster change through research and encourage the implementation of evidence-based practice regarding patient care. Its overall aim is to contribute to improved clinical outcomes.

The NRPDC houses a nurse-led research team whose aim is to inspire, support, and undertake quality research within the hospital and university. Its current research priority area, which is established within the NRPDC Strategic Plan 2018-2020 is:

· pressure injury prevention and management.

Aims

- To undertake research and practice development that is aligned with TPCH nursing strategy.
- To undertake research and practice development that impacts on the quality of patient care and improves outcomes.
- To extend nursing research capacity and capability, and enhance the research culture within the hospital and the university.
- To assist clinicians in research activities by providing mentorship and facilitation for research development, data collection, data analysis, and dissemination.
- To provide research ethics and governance guidance.
- To provide information regarding internal and external funding sources, and assist/collaborate with research grant applications.
- To support and co-write research articles for local, national and international conferences and peer reviewed journal publications.

- To assist clinical staff to obtain adequate funds to provide time away from their substantive roles to work on research projects.
- To support nursing staff to undertake higher degree by research (HDR) studies, supervised via the NRPDC.
- To provide HDR students with supervision, a research community, and office space and facilities to work on their research.
- To contibute to ACU's research outcomes.

Governance

The NRPDC is governed by a Steering Committee, which meets biannually to agree on and monitor the strategic direction and outcomes of the centre. Its members are:

Adjunct Associate Professor Alanna Geary, Executive Director of Nursing and Midwifery, Metro North Hospital and Health Services District; Professor Michelle Campbell, Executive Dean, Faculty of Health Sciences, ACU; Clinical Associate Professor Cherie Franks, Director of Nursing, TPCH; Professor Patrick Crookes, National Head of School of Nursing, Midwifery and Paramedicine, ACU; Clinical Associate Professor Belinda Faulkner, Nursing Director, Clinical Effectiveness, TPCH; Clinical Associate Professor Megan Lowe, Nursing Director, Education & Workforce, TPCH; Associate Professor Paula Schulz, Head of School (Qld), School of Nursing, Midwifery and Paramedicine, ACU; Professor Paul Fulbrook, Nursing Director, Research and Practice Development, NRPDC, TPCH & Professor of Nursing, School of Nursing, Midwifery and Paramedicine, ACU.



The Prince Charles Hospital

Personnel



Professor Paul Fulbrook RN; PhD, MSc, PGDipEduc, BSc (Hons)

Nursing Director

Paul was appointed as Professor of Nursing at ACU in late 2004. He began collaborating with TPCH in mid-2008. This led to his establishment in a full-time jointly funded role at TPCH in mid-2009, as Nursing Director, Research and Practice Development. He has an active role in the research life of TPCH, and is a founder member of its Research Council, and a member of the Hospital Research Ethics Committee. Paul's clinical and research background is in intensive care nursing. He is well known internationally for his critical care nursing work, has published widely in this field and spoken at many national and international conferences.



Vainess Mbuzi, RN, BN, MN (Primary Health Care), MN Adv Prac (Health Professional Education), Grad Dip (Intensive Care Nursing), PhD candidate

Research Nurse

Vainess is a Clinical Nurse currently seconded from the Adult Intensive Care Services at TPCH. She has over 30 years of experience as a registered nurse and has worked in a variety of areas, including education and management, overseas and in Australia. Vainess has been working part-time as a research nurse with the NRPDC, whilst completing her PhD, under the supervision of Professor Paul Fulbrook, Dr Sandra Miles and Dr Melanie Jessup, which investigated Indigenous peoples' experiences of acute cardiac care. She is a successful recipient of TPCH Foundation PhD Scholarship.







Sandra Miles RN, RM, CCYPN; BN, MN (Child & Adol), PhD

Research Fellow

Sandra is a part-time member of the NRPDC who also maintains a teaching and research position in the School of Nursing, Midwifery and Paramedicine at ACU. She completed her PhD in 2018 and is the recipient of Early Career Researcher support from ACU. Sandra is a credentialed children and young people's nurse who now specialises in skin integrity research. She is a member of the TPCH Tissue Viability Committee, collaborating with clinicians to identify suitable research projects and integrate research findings with clinical practice. Sandra mentors visiting researchers and co-supervises research students and assistants at the NRPDC.

Josephine Lovegrove RN; BN (Hons)

Research Assistant

Josie is full-time and has worked on a variety of projects, mainly in the pressure injury research programs. She completed her research for her Honours degree, investigating nurses' clinical judgement of pressure injury risk assessment and preventative interventions, graduating with first class honours in 2018.

Mel Jüttner RN; BN, Grad Cert Stoma Therapy/Wound Manage

Research Assistant

Mel is part-time and has worked on a variety of projects, mainly in both the falls prevention and pressure injury research programs. She also also undertakes ongoing contracts for the Wound and Stoma Service at TPCH. and works within the TPCH casual nursing pool.



Steering Committee

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Adjunct Associate Professor Alanna Geary	Executive Director of Nursing & Midwifery, Metro North Hospital and Health Services	Professor Michelle Campbell	Executive Dean, Faculty of Health Sciences, ACU
Clinical Associate Professor Cherie Franks	Director of Nursing, TPCH	Professor Patrick Crookes/ Professor Megan Stuart	Head, National School of Nursing, Midwifery and Paramedicine, ACU
Clinical Associate Professor Megan Lowe	Nursing Director, Education & Workforce, TPCH	Associate Professor Paula Schulz	Head of School (Qld), School of Nursing, Midwifery and Paramedicine, ACU
Clinical Associate Professor Belinda Faulkner/Ben Ballard	Nursing Director, Clinical Effectiveness, TPCH	Professor Paul Fulbrook	Nursing Director, Research and Practice Development, NRPDC & Professor of Nursing, ACU

TPCH and ACU Partnership Representatives



Clinical Associate Professor Cherie Franks RN; BN, Grad Cert Health Stud (Nurs), Dip Manage

Director of Nursing, The Prince Charles Hospital

Cherie holds positions as Clinical Associate Professor, ACU and Adjunct Associate

Professor, University of Queensland, with post graduate qualifications at both universities. Since 2015 Cherie has been the Director of Nursing at TPCH, which is a large tertiary hospital of over 600 beds within Metro North Hospital and Health Service. She is responsible and accountable for the provision of effective leadership, high level operational management and clinical expertise. Her passion and commitment is for clinical safety, patient outcomes and leading clinical service delivery in the provision of excellence. Cherie has a strong interest in nursing research and works collaboratively with the Nursing Director Research and Practice Development to integrate research evidence into clinical practice, and to further develop partnerships with consumers, researchers and clinical staff to strengthen nursing research and health care outcomes.



Professor Patrick Crookes, RN, RM; M&CHC; PhD, BA (Accounting), M Health Planning

National Head of School of Nursing, Midwifery and Paramedicine, Faculty of Health Sciences, ACU

Professor Patrick Crookes was Head of the National School of Nursing, Midwifery and Paramedicine at ACU for most of 2018. He was previously the Dean of the Faculty of Health and Behavioural Sciences at the University of Wollongong and Director of the Wollongong Academy for Tertiary Teaching and Learning Excellence. He was the Chair of the Council of Deans of Nursing and Midwifery ANZ from 2009-2013. In 2015, Professor Crookes was appointed a Principal Fellow of the Higher Education Academy (one of circa 350 globally) for his contributions to nursing education and scholarship. He is an Associate Editor for the international journal *Nurse Education Today*.



Clinical Associate Professor Megan Lowe, RN; BHSc, DipAppSc (Nursing Education), MA Admin Leadership

Nursing Director, Education and Workforce, TPCH

In her current role, Megan is a senior member of the Nursing Services Team, responsible and accountable for the provision of effective leadership, high level operational management and educational expertise for the planning, coordination, formulation and direction of policies relating to the provision of nursing education, staff development and nursing workforce that supports excellence in clinical care and ensures the planning, delivery and evaluation of high quality and cost effective services that are consistent with the strategic and operational directions of The Prince Charles Hospital, Metro North Hospital & Health Service and policy of the Department of Health. Megan has worked for Queensland Health for over 33 years and has held a number of senior nursing positions across clinical, educational and workforce fields. Over the last five years Megan has provided leadership and support to a range of activities associated with visioning and bringing to life an interactive partnership with ACU in the development of a Clinical School.



Associate Professor Paula Schulz, RN; BA, BSci (Hons), MPsych, DPsych (Health)

Head of School (Qld), School of Nursing, Midwifery & Paramedicine, ACU Paula has worked in tertiary education

for nearly 30 years, and has held a number of academic leadership positions with the School and Faculty at ACU. She completed her PhD in 2007, investigating the efficacy of a modified Theory of Planned Behaviour that included anticipated regret as an additional variable in determining the reproductive intentions of women. Her research interests lie in the areas of positive psychology and resilience, health behaviour change and transition support strategies for students in their first year of University. Paula has been instrumental in establishing the ACU Clinical School at TPCH.



Emergency Department TPCH



Visiting Researchers



Adam Burston, RN; BN, PhD, MHealthServMgmt, GradCert (Nurs)

Visiting Research Fellow

Adam is a lecturer at ACU. Working with the NRPDC, he is engaged in exploring the patients' and carers' experiences

of living with a pressure injury. A series of interviews with patients (and their carers) living with a pressure injury will be conducted. A meta-synthesis of current evidence is in progress and the research protocol for this study has been registered (PROSPERO CRD420181076100).



Dr Roger Lord, PhD, BAppSc, AssocDipAppSc, ARCPA

Visiting Research Fellow

Roger is a registered clinical biochemist and Associate of the Royal College of Pathologists of Australasia in chemical pathology. He is a university academic

and lecturer (Medical Sciences), attached to the School of Behavioural and Health Sciences, Australian Catholic University and a Visiting Research Fellow with the NRPDC. Roger has served on advisory committees to the Therapeutic Goods Administration (TGA) and currently holds an appointment as a specialist advisor to the TGA for pharmaceutical expertise in relation to transplantation and infectious diseases. He is currently clinically credentialed by Queensland Health for full scope of practice in clinical biochemistry and immunopathology at TPCH. Roger's principal project at TPCH is a registered double blind clinical trial for the use of 0.2% glyceryl trinitrate for the healing of chronic venous leg ulcers. The trial has industry support provided by Care Pharmaceuticals, 3M Corporation and Radiometer and is expected to extend into further clinical trials using combined therapy approaches for chronic wound management.



Alison Peeler, RN; MPhil, PGCert (Paed), PGCert (Paed Int Care), GradDip (Neonat), PhD candidate

Visiting Research Fellow

Alison regularly visits the NRPDC, and lectures in the School of Nursing, Midwifery and Paramedicine at

ACU (Brisbane) the remainder of the time. She has over thirty years' experience as a registered nurse and has worked in many areas including education, research and management. For her Master of Philosophy degree, Alison researched parents' and nurses' experiences of respiratory support of children with respiratory distress syndrome due to acute bronchiolitis. Her PhD is in the area of paediatric emergency care, and she is evaluating the new paediatric emergency department at TPCH.



Dr Min-Lin (Winnie) Wu, RN; MN (Crit Care), PhD

Visiting Research Fellow

Winnie lectures in the School of Nursing and Midwifery at Griffith University (Nathan Campus). She is a registered nurse and has worked in a

variety of clinical settings including intensive care, burns, medical, peri-operative care, and community. Also, she has been working in tertiary education and research since completing her PhD in 2012. Her research focuses on the areas of promoting chronic disease management, healthy ageing, and health care service in preventing hospital readmission in older adults. She is collaborating with NRPDC to investigate re-presentations to the emergency department.

Associate Researchers



Bridie McCann, RN; BN, Grad Cert (Health Admin)

Nurse researcher: emergency care

Bridie is a registered nurse working as a Transformation Business Partner for Metro North Hospital and Health Service supporting the implementation

of strategies to improve workforce culture and business efficiencies. She is a student with ACU completing a research thesis for a Master of Health Administration. Her research is focused on patients presenting to the emergency department following a fall. The aim of the study is to test the use of a rapid screening tool to assess patients for early referral and discharge



Catherine Saxon RN; MN(Res)

Nurse researcher: respiratory care

Cathy is a clinical nurse in the Endoscopy and Procedural Services at TPCH and was a nursing research student with ACU. In 2018 she was graduated from her master's degree, researching high

risk respiratory patients' experiences of bronchoscopy with 'cautious' sedation and analgesia. She was supervised by Professor Paul Fulbrook, Professor Kwun Fong, and Associate Professor Chantal Ski. To help fund her research, she received a grant from The Prince Charles Hospital Foundation. Cathy has also been collaborating with NRPDC on a systematic review of randomised controlled trials that have investigated use of various forms of sedation and analgesia during bronchoscopy, and have reported patient experience as an outcome.



Damian Williams RN; MNP (Nurs Pract), BNSc, Grad Cert (Clin Nurs), Cert IV WAT

Nurse researcher: wound care

Damian Williams has been directly involved in delivering advanced wound management services for nearly 20 years.

His current position is a Nurse Practitioner and Clinical Nurse Consultant for Wound Management at TPCH. He is actively involved in gaining knowledge and promoting best practice wound management. He holds post graduate gualifications in wound management and is currently undertaking a Masters of Nurse Practitioner Studies. He conducts regular wound management education and has presented at conferences at a state, national and international level. Damian has held committee positions on both the Australian Wound Management Association (now Wounds Australia) National Committee and Queensland Committee, and is a past President of the Queensland Committee and a current committee member. Damian is collaborating on several research projects with the NRPDC. He received a TPCH Foundation Novice Researcher grant for his first project, which is comparing two different dressings for use with skin tears.



Post Graduate Research Students

Research Student	Degree	Supervisors	Thesis short title
∝Sandra Miles	*Doctor of Philosophy	[°] Prof. Paul Fulbrook Debra Mainwaring-Magi Dr George Mnatzaganian	Sensory and motor interventions for very early school-age children
^a Petra Lawrence	*Doctor of Philosophy	^a Prof. Paul Fulbrook Assoc. Prof. Shawn Somerset Assoc. Prof. Paula Schulz	A randomised controlled trial of a psychosocial brief intervention for emergency department attendees with moderate psychological stress
Kodchanipa Phonpruk	*Doctor of Philosophy	Prof. Karen Flowers [©] Prof. Paul Fulbrook Prof. Geraldine Naughton Dr George Mnatzaganian	Discharge information provided to parents whose child has attended the paediatric emergency department
^β Vainess Mbuzi	Doctor of Philosophy	[°] Prof. Paul Fulbrook [°] Dr Sandra Miles Dr Melanie Jessup	Indigenous people's experiences of acute cardiac care
∝Alison Peeler	Doctor of Philosophy	^a Prof. Paul Fulbrook Assoc. Prof. Karen-Leigh Edward ^β Dr Frances Kinnear	Evaluation of a paediatric emergency department
^β Stephanie Gettens	*Master of Philosophy	^α Prof. Paul Fulbrook ^β Prof. Nancy Low Choy Dr Melanie Jessup	The impact of sustaining an in-patient fall
^β Catherine Saxon	*Master of Nursing (Research)	^α Prof. Paul Fulbrook Assoc. Prof. Chantal Ski ^β Prof. Kwun Fong	Experiences of patients who have undergone bronchoscopy with 'cautious' sedation and analgesia.
Ban Nuri Bapir	**Master of Health Administration	^a Prof. Paul Fulbrook ^a Dr Sandra Miles	Systematic review of prevalence, incidence and characteristics of mucosal pressure injury in hospitalised adults
Saveen Jawhar Oghana	*Master of Health Administration	^a Prof. Paul Fulbrook ^a Dr Sandra Miles	Exploratory descriptive study of prevalence, incidence, and characteristics of mucosal pressure injury
Bridie McCann	Master of Health Administration	^a Prof. Paul Fulbrook ^a Dr Sandra Miles	Screening for falls in the emergency department
^a Josephine Lovegrove	**Honours	[°] Prof. Paul Fulbrook [°] Dr Sandra Miles	Nursing assessment of pressure injury risk



Clinical Sciences Building TPCH

^αNRPDC ^βTPCH

Research Projects

PRESSURE INJURY PREVENTION AND WOUND MANAGEMENT

Prevalence of pressure injury in adults presenting to the emergency department by ambulance (NSQHS Standards 2 and 8)

^aPaul Fulbrook, ^aSandra Miles, Fiona Coyer (QUT)

The objective of this study was to investigate the prevalence of pressure injury in adults on arrival by ambulance to the emergency department (ED). An observational, crosssectional descriptive study design was used. Participants (n = 212) were recruited from the EDs of two Australian tertiary hospitals. Full skin inspection and pressure injury risk assessment, using Braden and Waterlow scores, were undertaken within one hour of presentation. Pressure injuries were identified in 11 of 212 participants, giving a prevalence of 5.2% at ED presentation. Nearly all were admitted to hospital, giving a prevalence of 7.8% at this entry point. Participants with pressure injury and those at high risk of injury were found to have spent longer in the ambulance and within the ED. During ambulance transport and in the first hour of presentation to the ED, it was rare that pressurerelieving interventions were implemented, even for those with an identified pressure injury and those at high risk. The results indicate that early pressure injury surveillance and risk assessment are merited at the point of presentation to the ED, so that prevention and treatment can be implemented at the earliest possible opportunity. Although it is more challenging to manage pressure injuries within the ambulance and ED, the use of pressure-relieving devices should be considered for those at greatest risk.

DISSEMINATION: a research article has been published in *Australian Critical Care*; international and local conference presentations have been given.

FUNDING: ACU Faculty of Health Sciences, \$13,000.

Prescription of pressure injury preventative interventions following risk assessment: an exploratory, descriptive study (NSQHS Standard 8)

^aJosephine Lovegrove, ^aPaul Fulbrook, ^aSandra Miles

This study aimed to identify and describe the pressure injury preventative interventions prescribed by nurses following assessment of a patient's pressure injury risk and to compare the prescribed interventions relative to the assessed risk level. A total of 200 patients were included. Patients' charts were audited within 24 hours of admission. Data collected included patient characteristics, pressure injury risk assessment score and level, and preventative interventions prescribed. Most patients were assessed as not being at risk, with the largest group of at-risk patients assessed as being at high risk. Some not-at-risk patients were prescribed interventions intended for those at risk, while prescription rates of preventative interventions recommended for those at any level of risk were variable (6–64%). Significant associations were found between assessed pressure injury risk and preventative intervention prescription. Preventative intervention prescription was inadequate, potentially exposing some patients to pressure injury. However, the association between intervention prescription and risk level suggests that nurses are prescribing interventions relative to risk. A more structured approach to intervention prescription according to risk level, such as a care bundle, may help to improve nurses' preventative intervention prescription and ensure that all at-risk patients receive appropriate preventative interventions.

DISSEMINATION: a research article has been published in *International Wound Journal*; a national conference presentation has been given; and the results were used to modify TPCH pressure injury risk assessment chart.

FUNDING: in-kind.

The relationship between pressure injury risk assessment and preventative interventions: a systematic review (NSQHS Standard 8)

^aJosephine Lovegrove, ^aSandra Miles, ^aPaul Fulbrook

The aim of this review was to identify and evaluate primary research which links pressure injury risk assessment with prescription and implementation of preventative interventions for hospitalised adults. A systematic review of the databases EBSCO CINAHL Complete, EBSCO MEDLINE Complete, Scopus and Web of Science was undertaken, using search terms related to pressure ulcers, hospitalacquired, risk, planning, implementation, prevention and outcome. Primary research reports that linked pressure injury risk assessment with prescription and implementation of preventative interventions in some way were included. From 589 potentially eligible publications, 20 primary research reports were included. Of these, seven linked pressure injury risk assessment to preventative intervention implementation and 13 linked it to preventative intervention prescription and implementation in some way. No studies linked pressure injury risk assessment to preventative intervention prescription alone. While the included studies linked these components in some way, there was little focus



on the relationship between the three. Pressure injury preventative intervention prescription is not well defined, with inconsistencies noted in intervention prescription across studies. Many studies reported inadequate provision of prevention measures for patients at risk of pressure injury. Further research is required to explore the relationship between pressure injury risk assessment and preventative interventions.

DISSEMINATION: the systematic review protocol was registered with *PROSPERO International*; and an article has been published in *Journal of Wound Care*.

FUNDING: in-kind.

Association between emergency department length of stay and hospital-acquired pressure injuries: a retrospective matched case control study (NSQHS Standards 2 and 8)

 $^{\alpha}\text{Paul}$ Fulbrook, $^{\alpha}\text{Sandra}$ Miles, $^{\alpha}\text{Josephine}$ Lovegrove, $^{\beta}\text{Frances}$ Kinnear

This study investigates the relationship between emergency department (ED) length of stay and the development of pressure injury in patients admitted to hospital from ED. The medical records of all patients admitted to hospital in 2017 via the ED, that subsequently developed a pressure injury within the first 48 hours of their hospital stay (cases), will be examined. These cases will then be matched with patients who were also admitted to hospital via the ED during 2017 but did not develop a pressure injury within the first 48 hours of their admission (controls). The medical records of both cases and controls will be compared to identify factors associated with pressure injury development. The 2017 cases and controls will also be compared to similar data collected in 2012.

FUNDING: in-kind.

Australian nurses' knowledge of pressure injury prevention and managemen (NSQHS Standard 8)

^aPaul Fulbrook, ^aSandra Miles, ^aPetra Lawrence

The aim of this study was to assess nurses' knowledge of pressure injuries in order to gather benchmark data, identify knowledge gaps, and based on results, implement educational strategies to improve practice. A cross-sectional survey design was used. The Pieper-Zulkowski Pressure Ulcer Knowledge Test (PZPUKT) was used to measure nurses' pressure injury knowledge (n = 306). The overall mean knowledge score was 65%; approximately two-thirds of the sample (68%) scored 60% or more. The lowest mean scores were found in the 'wound description' subscale. Participants who sought pressure injury information via the Internet or had read pressure injury guidelines scored significantly higher than those who had not (p = .001 and p < .001, respectively). Seventeen items were answered incorrectly by over half of participants, identifying important knowledge deficits, particularly within the wound description subscale. When compared with results from studies using the PZPUKT, we contend that a cut-off score of 60% and greater (instead of \ge 70%) should be used to indicate an overall satisfactory score. The results identified deficits in pressure injury knowledge related to seating support and seated individuals and wound dressings as areas where nurses would benefit from focused education strategies.

DISSEMINATION: a research article has been accepted for publication in *Journal of Wound, Ostomy and Continence Nursing*; several conference presentations have been given.

FUNDING: in-kind.

Prevalence and incidence of pressure injury in cardiac intensive care: a systematic review (NSQHS Standard 8)

^a Paul Fulbrook, Toni Prato, ^a Sandra Miles, ^a Josephine Lovegrove, ^a Vainess Mbuzi

Intensive care patients are at high risk of pressure injury development. The aim of this systematic review is to investigate the prevalence of pressure injuries in adult cardiac patients admitted to intensive care. The criteria for inclusion were: peer-reviewed primary research, of both observational (e.g. cross sectional, cohort, case control) and experimental research designs, which may be retrospective or prospective, and which reported on pressure injury prevalence and incidence. Nine studies met the criteria for inclusion. Data analysis is in progress.

FUNDING: in-kind.

DISSEMINATION: the systematic review protocol was registered with *PROSPERO International*.

Evaluation of a silicone gel adhesive hydrocellular foam dressings for the prevention of sacral pressure injuries in hospitalised elderly patients (NSQHS Standard 8)

°Paul Fulbrook , ${}^{\beta}\textsc{Damian}$ Williams, °Sandra Miles, °Josephine Lovegrove

The primary aim of this study is to compare the effect of a shaped silicone gel adhesive hydrocellular foam dressing to standard care on the development of sacral pressure injury in at risk elderly patients in a sub-acute hospital ward. The secondary aims are: to evaluate dressing comfort from the patient's perspective; to evaluate dressing utility from the nurse's perspective; and to quantify the direct costs associated with use of the foam dressing. The design is an open label randomised observational study of patients admitted the Geriatric Evaluation and Management (GEM) unit at TPCH. Data collection is complete and analysis is in progress.

FUNDING: Smith and Nephew, \$12,141.

Prevention of pressure injury using prophylactic sacral protective dressings: a systematic review (NSQHS Standard 8)

^a Vainess Mbuzi, ^a Sandra Miles, ^a Paul Fulbrook

Use of prophylactic dressings, particularly on the sacrum, as an additional protective measure for the prevention of pressure injuries has been investigated by various researchers. This study employed a systematic review and meta-analysis design in order to determine evidence of effectiveness of prophylactic sacral dressings in the prevention of pressure injuries. Electronic database searches were conducted from February 2018 to March 2018. Seven studies were included in the final review. Metaanalysis of the studies indicated that prophylactic use of a sacral dressing decreases the risk of pressure injury by 68%.

DISSEMINATION: the systematic review protocol was registered with *PROSPERO International*; an article is being prepared for publication.

FUNDING: in-kind.

The prescription and implementation of pressure injury preventative interventions following a risk assessment: an exploratory, descriptive study (NSQHS Standard 8)

^aJosephine Lovegrove, ^aSandra Miles, ^aPaul Fulbrook

The aim of this study was to explore the relationship between pressure injury preventative intervention prescription and implementation, following a risk assessment. An exploratory, descriptive research design was used. Data were collected from observations of the included patients' bedsides and extracted from their charts and electronic records using a standardised data collection form. Data analysis has been completed.

DISSEMINATION: an article is being prepared for publication.

FUNDING: in-kind.

Validity of pressure injury staging/categorisation by hospital staff: a retrospective quality audit (NSQHS Standard 8)

Annie Wang, «Sandra Miles, «Paul Fulbrook

The aim of this study was to determine the accuracy of pressure injury staging and reporting made by nursing staff.

The sample was drawn from all pressure injury incident reports made during 2016 and 2017 via Riskman that were subsequently re-assessed by experts from the hospital's Qualiity and Effectiveness Support Team (QuEST). The database was analysed to determine the accuracy of reported pressure injury staging. Both hospital-acquired pressure injury and pre-existing pressure injury present on admission were analysed and examined. Furthermore, the demographics and characteristics of the patients who developed a pressure injury during this time were explored and described. Results will be used to determine areas of improvement and effectiveness of interventions such as, education and staff awareness campaigns. Data analysis is in progress.

FUNDING: in-kind.

A meta-synthesis of the experience of living with a pressure injury: the perspectives of the patient and carers (NSQHS Standard 8)

^aAdam Burston, ^aSandra Miles, ^aPaul Fulbrook

This meta-synthesis aims to explore the experiences of both patient and carer when encountering a pressure injury; from their perspectives. Pressure injuries are known to generate a range of psychological, social and economic effects for patients and their carers, although qualitative research exploring these experiences is limited. The findings will enable a comprehensive understanding of the extent of the current research exploring experiences of pressure injuries from the point of view of the patient and their carer, and consolidated insights into the effects of this experience. Data synthesis is in progress.

DISSEMINATION: the protocol has been registered with *PROSPERO International*.

FUNDING: in-kind.

Assessment of pressure injury risk and intervention: nurses' clinical judgement with and without use of a standardised pressure injury risk assessment tool (NSQHS Standard 8)

°Sandra Miles, °Josephine Lovegrove, °Paul Fulbrook, $^\beta Tracy Nowicki$

Many people admitted to hospital are at risk of developing a pressure injury. Currently, TPCH nurses use a standardised tool to assess risk, which can be relatively time-consuming to complete. Also, some studies have suggested that clinical judgement may be as effective. The aim of this study is to compare nurses' use of a structured risk assessment tool versus clinical judgement to determine which results in the most effective planned interventions to prevent pressure injury. Data collection will commence soon.

FUNDING: The Prince Charles Hospital Foundation, \$9,796.



A systematic review of the prevalence, incidence and characteristics of mucosal pressure injury in hospitalised adults (NSQHS Standard 8)

Ban Isaqi, ^aSandra Miles, ^aPaul Fulbrook

The aim of this systematic review was to identify and evaluate primary research studies which reported the prevalence and incidence and characteristics of mucosal pressure injuries, as well as the characteristics of hospitalised adults with these injuries. Searches were conducted between 2008 and 2018. In total, 381 eligible articles were identified of which 12 articles met the inclusion criteria for full review. The studies were conducted from 2008 to 2018 in different countries. None of the included studies investigated the prevalence or incidence of mucosal pressure injury as a primary research outcome, nor could these be calculated as a secondary outcome. However, in seven studies the characteristics of mucosal pressure injury were specifically reported and indirectly reported in the remaining studies. These included the number of mucosal pressure injuries, site, number of mucosal pressure injuries per site, size, medical device associated with these injuries, number of mucosal pressure injury per device, site of mucosal pressure injury per device, severity, and surface characteristics of these injuries. The characteristics of patients with mucosal pressure injury (age, gender and setting) were reported in only a few studies. The level of evidence of the included studies ranged from a relatively low to a moderate level according to JBI Levels of Evidence.

DISSEMINATION: the protocol has been registered with *PROSPERO International*; an article is being prepared for publication.

FUNDING: in-kind.

A retrospective exploratory descriptive study of the prevalence, incidence, and characteristics of mucosal pressure injury (NSQHS Standard 8)

Saveen Oghana, ^aSandra Miles, ^aPaul Fulbrook

Despite reduction in the prevalence of pressure injury in general, medical device-related pressure injury is an ongoing clinical problem. Almost all available studies on medical device related pressure injury focus on skin pressure injury and disregarding mucous membrane pressure injury. The overall aim of this study is to describe the prevalence, incidence, and characteristics of reported mucosal pressure injuries for adults at TPCH during 2015-2017. The study employed a retrospective exploratory descriptive research design to report and describes the prevalence, incidence, and characteristics of mucosal pressure injury. The period prevalence of mucosal pressure injury for the years 2015, 2016, and 2017 was 0.2%, 0.1%, and 0.1%, respectively, and the overall point prevalence of mucosal pressure injury for the three years was 0.57%. 0.59%, and 0.0%, respectively. The cumulative incidence of mucosal pressure injury was 0.15%, 0.09%, and 0.1% for the years 2015, 2016, and 2017, respectively. The incidence density in 2015 was 0.47, in 2016 was 0.31, and in 2017 was 0.34 number of mucosal pressure injuries per 1000 bed days. The most common medical devices to cause mucosal pressure injury were the endotracheal tube (n = 65, 32.3%), Foley catheter (n = 40, 20%), and endotracheal tube tapes (n= 38, 19%). Consequently, lip (n = 64, 31.8%), mouth (n = 52, 26%), and genital area (n = 41, 20.4%) were the predominant anatomical sites to be affected. The findings of this study concluded that intensive care unit patients have the same possibility as non-intensive care unit patients to develop hospital-acquired mucosal pressure injury with a similar number of mucosal pressure injuries per patient. Another important finding was that non-intensive care unit patients were six and three times more prone to develop mucosal pressure injury in the nostril and genital area, respectively, than intensive care unit patients. Also, the results of this study showed that males are five times more likely to develop mucosal pressure injury in the genital area than females. The majority of study findings are not reported in published literature on mucosal pressure injury. This study has added to existing knowledge of mucosal pressure injury. It has demonstrated the need for conducting more research into a variety of unexplored clinical features of mucosal pressure injury.

DISSEMINATION: an article is being prepared for publication.

FUNDING: in-kind.

Categorisation of characteristics and severity of mucosal pressure injuries: a modified Delphi study (NSQHS Standard 8)

^aSandra Miles, ^aPaul Fulbrook

This study will commence by assembling a consensus panel of wound care experts. In the first phase, experts will be asked to review a set of previously collected de-identified photographs and descriptions of mucosal pressure injuries in order to assess their severity and derive agreed key descriptors for each wound. In the second phase, a Delphi technique will be used to seek expert consensus on categorisation of the wounds according to their severity, with the aim to develop hierarchical wound grading criteria for mucosal pressure injuries. The wound grading criteria will subsequently be tested for reliability and validity, in the form of a wound assessment tool, in a future study. Ethical approval has been received and the study will commence soon.

FUNDING: in-kind.

αNRPDC ^βTPCH

A descriptive, exploratory study of mucosal pressure injury 4-year reported incidence and characteristics using a retrospective quality audit (NSQHS Standard 8)

^aMel Jüttner, ^aPaul Fulbrook, ^aSandra Miles

The aim of this project is to describe the reported 4-year incidence and characteristics of mucosal pressure injury at TPCH between 2015 and 2018. An existing database of mucosal pressury injuries will be utilised. Medical charts will be accessed to collect further data on the mucosal pressure injury characteristics. The demographics and characteristics of the patients who developed a mucosal pressure injury during this time will be described. Furthermore, point prevalence of mucosal pressure injury between 2015 and 2018 will be determined from already published Queensland Bedside Audit reports, for comparison and benchmarking purposes. It is planned to collect data early in 2019.

FUNDING: An application for funding is being prepared.

Adhesive silicone foam dressing versus meshed silicone interface dressing for the management of skin tears: a comparison of healing rates, and patients' and nurses' satisfaction (NSQHS Standard 8)

^βDamian Williams, ^αPaul Fulbrook, ^αSandra Miles, ^αJosephine Lovegrove

Point prevalence audits within TPCH between 2009 and 2011 have yielded skin tear prevalence results between 5.38% and 12.59% and 95% of skin tears were on patients over the age of 65. The main goal of this study is to compare two standard dressings in terms of their skin tear healing times. Secondary goals are to assess nurses' satisfaction with the dressings (fit for purpose) and patients' satisfaction (comfort et cetera). This will also enable a cost-benefit comparison to be made. Data collection is in progress.

FUNDING: The Prince Charles Hospital Foundation, \$9,938.

Application of 0.2% glyceryl trinitrate ointment for the healing of chronic venous leg ulcers (NSQHS Standard 8)

^αRoger Lord , ^βDamian Williams, ^αSandra Miles, ^αPaul Fulbrook, ^βEwan Kinnear, ^βJeffrey Rowland

A small study by Roger Lord showed that glyceryl trinitrate, the active ingredient in Rectogesic ointment, increased production of nitric oxide in venous leg ulcers. This resulted in vasodilation and immune system activation at the wound site, helping to clear bacterial load and promote wound closure. This new study will recruit a larger sample to reach statistical significance. Consenting patients with venous leg ulceration, confirmed with the use of transdermal oxygen sensors, will be randomly allocated to a control (usual treatment) or experiment (application of 0.2% glycerol trinitrate) group. Planimetry will be used for baseline measurements of ulcer size and to ascertain healing rates at weekly visits over four to six weeks, to monitor whether treatment is having an effect.

FUNDING: ACU, Faculty of Health Sciences, \$10,000; Wounds Australia, \$5,000.

A comparison of wound healing with compression therapy to electric stimulation therapy (NSQHS Standard 8)

William McGuinness (La Trobe), Charne Miller (La Trobe); et al.; ª Paul Fulbrook, ª Sandra Miles, ^BDamian Williams

This study is considering the effectiveness of electrical stimulation therapy compared to or in combination with compression therapy to treat leg ulcers. This is a multi-site study in which TPCH is participating. Study participants are using a portable electric stimulation device that can be selfadministered in their home. The number of wounds that heal and the perecentage of wound size change is being monitored over 14 weeks. Both clinical effectiveness and cost-effectiveness are being investigated. Data collection at TPCH is in progress.

FUNDING: in-kind.

PRessure Injury ManagEment Through IMplementation of Evidence (PRIMETIME): a novel intervention to reduce intensive care incidence (NSQHS Standard 8)

Fiona Coyer (QUT), ^aPaul Fulbrook, Karen-Leigh Edward (Swinburne), Gunter Hartel (QIMR), Jeffrey Gow (USQ)

Critically ill patients are vulnerable and at high risk of pressure injury development. Pressure injury causes significant harm to patients, inflicts pain, precipitates serious infection, hinders recovery, and results in increased morbidity and mortality. It extends hospital length of stay by over four days on average with treatment cost estimated at AU\$285 million. Furthermore, though theoretically preventable, pressure injury incidence in Australian ICU is unacceptably high (up to 30%). While sound evidence for preventative strategies exists, sustained translation into practice is lacking. This project aims to remedy this deficit. Six major tertiary referral hospital ICUs will participate. This three-year multi-phase project will rigorously implement, and evaluate three novel interventions in combination with a core skin 'care bundle' (the PRIMETIME protocol) to reduce pressure injury incidence in critically ill patients.

FUNDING: an application is under review for a Category 1 research grant.



FALLS PREVENTION AND MANAGEMENT

Fast screening of patients that present to the emergency department following a fall: a feasibility and prevalence study 1 (NSQHS Standard 10)

 $^{\alpha}$ Paul Fulbrook, $^{\alpha}$ Sandra Miles, $^{\beta}$ Frances Kinnear, Bridie McCann

The overall aim of this project is to demonstrate the feasibility and effectiveness of streamlining the processes of assessment and early management of ED presentations of fallers utilising an integrated ED Falls Pathway. In this phase of the project a falls screening tool was tested and falls prevalence was estimated. Data collection and analysis has been completed.

DISSEMINATION: a research article is under preparation for publication.

FUNDING: The Prince Charles Hospital Foundation, \$9,762.

Fast screening and assessment in the emergency department: a clinical innovation to prevent falls in older people (NSQHS Standard 10)

^a Paul Fulbrook, ^a Sandra Miles

The aim of this project is to implement and evaluate an interdisciplinary program within the emergency department (ED) to identify, screen and treat people that have fallen: the Emergency Department Falls Pathway (ED-FP). As a result of an initial nurse-led screening process, fallers will be referred to relevant health professionals and within a short space of time will receive an expedited clinical review whilst within ED that is focused on their recurrent falls risk. As well as providing immediate treatment focused on the fall, this will enable a falls prevention plan to be initiated within the ED for patients that can be safely discharged home, with referral for appropriate community support. Data collection will commence in early 2019.

FUNDING: The Prince Charles Hospital Foundation, \$48,950.

Patients' experiences of sustaining an in-hospital fall (NSQHS Standards 2, 10)

 $^\beta$ Stephanie Gettens, $^\alpha$ Paul Fulbrook, Melanie Jessup (UQ), $^\beta$ Nancy Low Choy

The aim of this project was to understand the patient's perspective of falling in hospital. A qualitative phenomenological design was used to investigate their experience. Twelve hospital inpatients that had recently

fallen were interviewed. Three key themes emerged from the analysis: *Feeling safe*, *Realising the risk* and *Recovering independence and identity*. These themes described a continuum whereby falling was not initially a concern to participants, who trusted staff to keep them safe, and tended to not seek assistance. As participants began to appreciate the reality of their falls risk, they felt disempowered by their loss of independence but were more receptive to receiving assistance. Finally, as participants recovered, their desire to regain independence increased. They wanted others to perceive them as physically competent, rather than as a frail older person, meaning they were more willing to take risks with mobility.

DISSEMINATION: a research paper has been published in *Journal of Clinical Nursing*.

FUNDING: in-kind.

Falls knowledge survey (NSQHS Standard 10)

Melanie Jessup (UQ), ^aPaul Fulbrook, Keith Skelton (ACU), Jenneke Foottit (ACU)

The aim of this project was to conduct a district wide survey on the topic of falls to ascertain health professionals' current knowledge of falls: their impact and prevention. A questionnaire was developed to identify potential gaps in knowledge and to inform further research and education. Data collection has been completed and analysis has been completed.

DISSEMINATION: local conference presentations; an article is being prepared for publication.

FUNDING: The Prince Charles Hospital Foundation, \$4,453.

Clinical care in relation to falls (NSQHS Standard 10)

^βClaire Burl, Jenneke Foottit (ACU), Melanie Jessup (UQ)

The aim of this study is to determine what clinical care and activities are occurring at the time of a patient fall. It utilised a process of mapping patient and staff location and activity at the time of an inpatient fall, utilising this data in focus groups in which staff consider how practice can be modified to minimise falls. Qualitative interviews with the staff member assigned to care for the patient who fell will deliver insight in to the potential impact of a patient fall. The data have been analysed.

DISSEMINATION: a research article is under preparation for publication.

FUNDING: The Prince Charles Hospital Foundation, \$7,563.

^αNRPDC ^βTPCH

EMERGENCY CARE

Multidisciplinary evaluation of an emergency department nurse navigator role: a mixed methods study (NSQHS Standard 2)

^αPaul Fulbrook, Melanie Jessup (UQ), ^βFrances Kinnear

The aim of this study was to utilise multidisciplinary staff feedback to assess their perceptions of a novel emergency department (ED) nurse navigator role and to understand the impact of the role on the department. A supernumerary ED nurse navigator was implemented week-off-week-on, seven days a week for 20 weeks. Diaries, focus groups, and an online survey (24-item Navigator Role Evaluation tool) were used to collect and synthesise data from the perspectives of multidisciplinary departmental staff. Thematic content analysis of cumulative qualitative data drawn from the navigators' diaries, focus groups and survey revealed iterative processes of the navigators growing into the role and staff incorporating the role into departmental flow, manifested as: Reception of the role and relationships with staff; Defining the role; and Assimilation of the role. Statistical analysis of survey data revealed overall staff satisfaction with the role. Physicians, nurses and others assessed it similarly. However, only 44% felt the role was an overall success, less than half (44%) considered it necessary, and just over a third (38%) thought it positively impacted inter-professional relationships. Investigation of individual items revealed several areas of uncertainty about the role. Within-group differences between nursing grades were noted, junior nurses rating the role significantly higher than more senior nurses.

FUNDING: Australian Centre for Health Services Innovation, \$74,000.

DISSEMINATION: an article has been published in *Australian Critical Care;* conference papers have been given.

Ambulance retrieval: what factors are involved in the decision to transport an emergency patient to hospital? A case study and decision analysis (NSQHS Standard 2)

^α Paul Fulbrook, Melanie Jessup (UQ), ^β Frances Kinnear, Justin Boyle (CSIRO); Emma Bosley (QAS); Gerry FitzGerald (QUT); Marc Colbeck (ACU)

This study investigated how decisions were made about ambulance destinations from the perspectives of ambulance personnel, emergency department (ED) staff, hospital managers and patients. The information was used to develop an objective decision-making process that accounted for and prioritised factors such as patient acuity, distance/traffic, ambulance and ED/hospital resources and capacity in order to inform ambulance destination. A case study design was used to gather information from stakeholders about ambulance destination decisionmaking, using a purposive sample of 30 ED presentations as cases. The cases were used to trace each step of the patient's journey from ambulance pick-up to ED arrival. As well as the patient and their relative, emergency healthcare personnel involved in each patient episode were interviewed. Cases were then analysed and summarised, identifying all possible decision points (expected and chance) and possible outcomes. Emergency care experts from south east Queensland participated in five expert panel meetings to analyse the findings. Their results were used to develop a decision tree analysis.

FUNDING: Metro North Hospital and Health Services SEED grant, \$111,139.

DISSEMINATION: conference papers given; two articles are being prepared for publication.

A two-year analysis of presentations to a paediatric emergency department

^αAlison Peeler, ^αPaul Fulbrook, ^αSandra Miles, ^βFrances Kinnear, Karen-Leigh Edward

The aim of this study is to analyse patterns of attendance. Data were retrieved for all paeditric presentations to the TPCH paediatric emergency department during its first two years of operation. During the study period there were 35,649 presentations. The mean age of the sample at presentation was 5.83 years (SD 4.61, IQR 1.80-9.59) with a majority of males (56.0%, n = 19.975). Data analysis is in progress.

FUNDING: in-kind.

Paediatric emergency nurses' perceptions of parents' understandingof discharge information: A qualitative study (NSQHS Standard 2)

Kodchanipa Phonpruk, Karen Flowers (ACU), Geraldine Naughton (ACU), ^aPaul Fulbrook

The aim of this study was to identify paediatric emergency department (ED) nurses' perceptions of factors influencing parents' understanding of discharge information. Content analysis was used to analyse data from three semi-structured focus groups with paediatric ED nurses. Findings were interpreted within the three domains of structure, process, and outcomes from the Donabedian model. Within the structure domain, barriers to effective provision of discharge information included inexperienced ED staff and time policies. Enablers included availability of interpreter services. Process-related barriers included parents' health-related behaviour and health literacy, while enablers included ensuring parents understood discharge information. Nurses' perceptions of ineffective outcomes involved the risk of parents receiving incomplete or inappropriate information. Nurses' perceived effective

outcomes in quality of care were related to their professional experience and competence in being able to provide useful information to parents. The findings from this study could inform future research to maximise the role of ED nurses in providing a high quality of discharge care for children discharged from the ED.

FUNDING: in-kind.

DISSEMINATION: an article has been published in *Australasian Emergency Care*.

Analysis of written resources for parents of children discharged from a paediatric emergency department (NSQHS Standard 2)

Kodchanipa Phonpruk, Karen Flowers (ACU), Geraldine Naughton (ACU), ^aPaul Fulbrook

The aim of this study was to profile the information and readability of parent-focused resources to support care at home following a child's discharge from a paediatric emergency department (ED). Analysis included recording the scope, source, readability scores and benchmarking the contents against previous recommendations for discharge information. Information from 46 resources (on 41 conditions) from three separate sources was analysed. Overall, a wide range of resources was available. Inconsistency was evident in the framework and design of resources available. Approximately two thirds of resources provided information about referral to community resources, and most had links to community health providers. Assessment of readability levels showed a predominant pitch towards a relatively high level of schooling. Existing written resources available for parents to use in caring for their child's following discharge from an ED could improve with more streamlined designs as well as consistent references to community resources and additional health providers. Parents with low reading capacity may not be able to make the most of existing resources to care for their child at home following ED discharge. This framework was developed for reviewing the resources could be useful for quality assuring other parent focussed discharge information.

FUNDING: in-kind.

DISSEMINATION: a research article has been accepted for publication in *Journal of Child Health Care*.

Evaluation of a new method to obtain urine samples from non toilet-trained children presenting to the emergency department

^βJeanette Probyn, ^αPaul Fulbrook

The primary aim of this project is to reduce the contamination rate of urine samples obtained for microbiological examination from non toilet-trained

children in the children's emergency department (ED). A secondary aim is to reduce the time taken to obtain such samples. The project was undertaken in two phases. Initially, a baseline study was undertaken to establish the incidence of urinary sample contamination. In phase two, nursing staff were provided with education about a standardised method of perineal cleaning, as well as a standardised approach to usual care (termed the 'clean catch' method) and a novel approach using a children's potty. These two methods (both using standardised cleaning) were evaluated using a randomised controlled trial. The main outcome measures are: sample contamination and time to obtain sample. Data analysis is in progress.

FUNDING: The Prince Charles Hospital Foundation, \$3,190.

The relationship between characteristics of emergency department presentations and increasing demand in emergency care: a retrospective correlational study (NSQHS Standard 2)

^aWinnie Wu, ^aPaul Fulbrook, ^aSandra Miles, ^aJosephine Lovegrove

Despite the high demand for emergency department (ED) services, studies have shown that between 8% and 22% of patients revisit the ED within 30 days of discharge from the ED. Higher ED revisit rates result in increased inhospital admissions and costs. Therefore, understanding the pattern and characteristics of ED presentations and ED revisits are essential to inform service planning. The purpose of this study is to determine the characteristics of emergency presentations and their association with ED revisits for adult patients within 30 days of ED discharge. A quantitative research approach is being be employed. The data will be collected via ED databases over one year period in an acute tertiary hospital. The main outcomes of this study will be an improved understanding of the factors associated with ED revisits and recommendation of possible interventions to prevent ED revisits. Data analysis is in progress.

FUNDING: ACU Faculty of Health Sciences, \$10,000.

Stakeholder evaluation of a paediatric emergency department (NSQHS Standard 2)

^αAlison Peeler, ^αPaul Fulbrook, ^αSandra Miles, Karen-Leigh Edward, ^βFrances Kinnear

The aim of this study is to review the development of the paediatric emergency department (ED) and to evaluate the current service from the perspectives of multi-disciplinary healthcare staff and managers of the service. A qualitative approach will be used to explore the experiences of healthcare staff, administrators and managers who have worked in the paediatric ED. This

^αNRPDC ^βTPCH

approach will be descriptive in nature. The significance of having the staff's narrative about how they perceive the workings of the service and how they compare with the outcomes of the previous three studies will help identify strengths and weakness of the services which may inform further development of the service, and will provide useful information that may benefit the design and management of other paediatric ED services.

FUNDING: in-kind.

Parents' experiences of care in a paediatric emergency department: a phenomenological inquiry (NSQHS Standard 2)

^αAlison Peeler, ^αPaul Fulbrook, Karen-Leigh Edward, ^βFrances Kinnear

The purpose of this study was to provide a rich description of the lived experiences of parents whose child had received care in a new paediatric emergency department. A descriptive phenomenological design was used. Semistructured interviews were conducted with 18 parents. Participants were asked to describe their experience of having a sick or injured childtreated at the paediatric emergency department, recounting the story of their journey from when their child was first sick or injured, through to their experience within the emergency department, until discharge home. Following analysis, six themes emerged: I can't imagine my life without her; Keeping me up to date with what was happening; They treated my child in a way that was toddler friendly: They had our child's best interest at heart; We were working as a team; and There are games and books in the waiting room. The findings demonstrated that parents' experience of having an ill or injured child treated by the paediatric emergency department was a positive experience and highlighted factors that contributed to this experience. These included open communication, competent and skilled staff, being seen in a timely manner and being cared for in a thorough, family inclusive and child-friendly way.

DISSEMINATION: an article has been accepted for publication in *Australasian Emergency Care*; conference papers have been given.

FUNDING: in-kind.

CARDIAC/THORACIC CARE

Effectiveness of programs to promote cardiovascular health of Indigenous Australians: a systematic review (NSQHS Standard 2)

^βVainess Mbuzi, ^αPaul Fulbrook, Melanie Jessup (UQ)

Journal databases were systematically searched for relevant studies, limited to those published in English between

2008 and 2017. All studies that used experimental designs and reported interventions or programs explicitly aimed at improving Indigenous cardiovascular health were considered for inclusion. Eight studies met the inclusion criteria and were assessed to be of varving methodological guality. Common features of effectiveness of programs were integration of programs within existing services, provision of culturally appropriate delivery models with a central role for Indigenous health workers, and provision of support processes for communities such as transportation. It was noted however, that the programs modelled the interventions based on mainstream views and lacked strategies that integrated traditional knowledge and delivery of health care. The results indicate that there are opportunities to improve cardiovascular health of Indigenous people at all stages of the disease continuum. There is a need for further research into evidence-based interventions that are sensitive to Indigenous culture and needs.

DISSEMINATION: the systematic review protocol is registered with PROSPERO International; an article has been published in *International Journal for Equity in Health*; national conference presentations have been given.

FUNDING: in-kind.

Researching with Indigenous people: an auto ethnography (NSQHS Standard 2)

^βVainess Mbuzi, Melanie Jessup (UQ), ^αPaul Fulbrook, ^αSandra Miles

Researching with Indigenous people requires extra considerations that are sensitive and responsive to their needs. Research is not an activity that Indigenous people look forward to due to their being over researched as a community, with hardly any tangible benefits to them. In most cases they have also felt misrepresented in research outputs. Indigenous people are, therefore, generally at risk of experiencing inequalities in health experiences, health outcomes, as well as research benefits. For Indigenous peoples across the world the hospital has not been a place of many positive experiences. There is under representation of an Indigenous voice in many societal arenas, which may lead to limited autonomy in determining and addressing their health needs. Conducting research among Indigenous people has its own unique challenges and the researcher is charged with the responsibility of planning and working through them in order to effectively complete a project. The voice of the researcher is not always heard in most research reports which generally focus on others and outputs.

DISSEMINATION: a research article is being prepared for publication.

FUNDING: in-kind.



Becoming a parent: the experience of people with cystic fibrosis (NSQHS Standard 2)

Melanie Jessup (UQ), ^βAnne Li, ^αPaul Fulbrook, ^βScott Bell

This qualitative study explored the experience of seven Australian adults with cystic fibrosis through phenomenological enquiry. Utilising a semi-structured interview method, participants were invited to describe their experience of becoming a parent. Recorded interviews were transcribed verbatim and analysed according to van Manen's approach. Analysis of the data realised two overarching themes that characterised the experience of parenthood as recounted by the participants: Counting the Cost, as they recalled the Communication and Processes of Pregnancy; and Living the Dream, as they cast a retrospective view over this, their major achievement, in light of their Coping, Conjecture and Confidence. The study draws attention to the role and influence of partners, parents and health professionals, and recommends ways in which key personnel and healthcare partners can enhance their contribution and care.

DISSEMINATION: a research paper has published in *Journal* of *Clinical Nursing*; several conference papers given.

FUNDING: Queensland Health – Health Practitioner Research Scheme, \$5,000.

Patient experience with various pharmaceutical agents during bronchoscopy: a systematic review (NSQHS Standard 2)

 $^\beta Catherine Saxon, ^Paul Fulbrook, Chantal Ski (Belfast), <math display="inline">^\beta Kwun$ Fong

Cochrane methodology was used. Nine databases were searched. Randomised controlled trials (RCT) were included when outcome data contained self-reported patient experiences and/or willingness to repeat the bronchoscopy with or without pharmaceutical intervention. The search yielded 32 relevant RCT that collected data on psychological, physical or patient satisfaction outcomes. Midazolam, temazepan, propofol, nitrous oxide or codeine were found to reduce negative patient experiences. Dextromethorphan enhanced the patient experience when added to midazolam. Propofol provided more positive patient experiences during the procedure than midazolam. When hydrocodone was added to midazolam or propofol, participants reported a more positive experience.

FUNDING: in-kind.

DISSEMINATION: the protocol has been registered with PROSPERO International; a paper has been submitted for publication; several conference papers have been given.

High risk respiratory patient's experiences of bronchoscopy with cautious sedation and analgesia: a qualitative study (NSQHS Standard 2)

 $^\beta$ Cathy Saxon, <code>°Paul Fulbrook</code>, Chantal Ski (University of Melbourne), $^\beta$ Kwun Fong

The aim of this study was to understand the experiences of high-risk respiratory patients undergoing bronchoscopy with conscious sedation. A phenomenological approach was used. Two unstructured interviews were conducted with 13 patients who underwent day-case bronchoscopy; all received conscious sedation. Participants were found to have had varying experiences. Five themes emerged from the analysis: Frustration and fear; Comfort and safety; Choking and coughing; Being aware; and Consequences. Whilst not all participants experienced procedural awareness or remembered it, for those who did it was a significant event. Overall, experiences were found to be negative; however, participants accepted and tolerated them, perceiving them as necessary to obtain a diagnostic result. Often patients were aware during the procedure and their experience was uncomfortable and distressing. These findings have implications for patient preparation pre- and post-bronchoscopy in terms of what they might expect, and to discuss what has happened after the procedure.

DISSEMINATION: a research article has been published in *Journal of Clinical Nursing*; international and national conference papers have been given.

FUNDING: The Prince Charles Hospital Foundation, \$9,940.

OTHER RESEARCH

Evaluation of the ACU/The Prince Charles Hospital Clinical School experience: phase 1

 $^{\alpha}$ Sandra Miles, Paula Schulz (ACU), $^{\alpha}$ Paul Fulbrook, Gillian Lewis (ACU), $^{\beta}$ Cherie Franks, $^{\beta}$ Megan Lowe

This study is using mixed methods using a quantitative survey (Quality Clinical Placement Environment inventory) and qualitative focus groups. Particpants are students that commenced at the ACU/TPCH Clinical School in 2016, second year ACU Nursing students that commenced a traditional placement at TPCH and at an equivalent comparator hospital, educators from ACU, and staff involved in teaching students on traditional placement. Data collection is complete and analysis is in progress. The results of ACU/TPCH Clinical School students and comparator group students on the QCPE tool, as well as comparison of the grade point averages of both groups in their clinical subjects in semesters one and two, will offer quantitative insight into their differing experiences.

FUNDING: in-kind.

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A descriptive, exploratory study of mucosal pressure injury incidence, prevalence and characterstics using a retrospective quality audit.

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Find, praise, educate: a prospective, descriptive, observational study of falls risk prevention in an acute setting.

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^αNRPDC ^βTPCH

Conference Presentations

International

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