

Pressure Injury Prevalence and Practice Improvement: A realist evaluation of nursing care and nursing knowledge to reduce pressure injuries in an Australian hospital

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Wollongong, NSW Australia



22°C average daily temperature (71.6°F) 85KM to Sydney Opera House (53 miles)

27°C average summer temperature (80.6°F)

293,494 population of Illawarra 17 patrolled surf beaches

11 national parks within 50km



Pressure injuries are defined as

"localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear"

(NPUAP, EPUAP & PPPIA 2014, p. 18)



Background

Pressure injuries are:

- Painful, reduce QOL and lead to \uparrow mortality (Essex et al. 2014)
- A common form of adverse event (Tubaishat et al. 2018)
- Considered preventable and an indicator of quality nursing care (Stotts et al 2013)
- Expensive to health care systems (Nguyen et al. 2015)



Research Aim:

To explore how periodic pressure injury prevalence (PIP) surveys can impact on Hospital Acquired Pressure Injury (HAPI) rates and the knowledge and attitudes of nursing staff towards preventing pressure injuries in an acute care hospital.



Methodology:

1. Used a Realist Evaluation Framework.

- 2. Equal focus on Pressure Injury Prevalence and improving processes of care.
- 3. Evaluation of what has worked, for whom and in what circumstances (Pawson & Tilley 1997).



Mixed Methods Study

- Pressure Injury Prevalence study 1 (All patients 4 wards)
- Nurse Survey (Knowledge & attitudes of nurses to PI prevention)
- Snapshot Audit 1 (10 random patients 4 wards)
- Ward developed Action Plan
 - Snapshot Audit 2 (10 random patients 4 wards)
- Ward developed Action Plan
 - Pressure Injury Prevalence study 2 (All patients 4 wards)
- Nurse Survey 2 (Knowledge & attitudes of nurses to PI prevention)
- Interviews with Pressure Injury Champions, Educators & NUMs
- Group Interviews with ward staff

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Sample: 4 wards in 1 hospital

Ward 1: Surgical 24 patients 31 nursing staff		Ward 2: Medical 28 patients 26 nursing staff		
	Wollor Hos	ngong pital		
Ward 3: Medical 30 patients 34 nursing staff		Wai 28	r d 4: Sub-acute 25 patients 8 nursing staff	







Pressure Injury Prevalence Surveys

Methods: Observational study

- 2 observers (one independent)
- All completed training (Online learning module & test)
- Used International Clinical Practice Guideline for Pressure Injury classification (NPUAP/EPUAP/PPPIA 2014)
- Independent observer conducted all PIP surveys
- Methodology based on EPUAP guidelines and NSW Clinical Excellence Commission Audit tool
- Data collected on iPad

iPad Data Collection tool

- Developed as part of this project
- All data collected via an iPad
- Dual sign-off by both auditors
- Enabled rapid data turnaround times
- Hosted on secure University server

	Pressure Injury Survey +
Add New Pressure Injury Survey	v
Patient Details	
Researcher Name	Prevalence Survey *
Jenny Sim	Select a value
Bed Number / Location	Sex
	Male Female Indeterminate/Intersex/Unspecified
Date of Birth	usite admitted to ward
dd(mm)yyy	
Date admitted to facility	
dalmmiyyyy	
Do you want to complete Part 2 of the survey? *	
Ves 🔿 No	
Part 1: Nursing care process survey	
Question 1: Is there documentation of the person being screened for risk of pressure injury or	spresentation?
Ves, a risk screening is documented and the person WAS at risk of pressure injury	
O No, a risk screening IS NOT documented	
Question 2: Is there documentation of a fully completed, comprehensive risk assessment (using	ng a validated tool) being documented / scored within 8 (24) hours of admission to the
O El hours. O 24 hours. O Not controleted	
Question 3: If risk assessment completed the assessment tool used was:	
parately when the trace dataset of the sphere of the order of the second test of the second test of the	5076 IA.
Question 5: is there documentation of a huly completed, comprehensive skin assessment beil O 8 hours. O 24 hours. O Not completed	ig documented within 8 (24) hours of admission?
Question 6: Patients at risk of pressure injury ONLY:	
□ N/A	
If patient assessed as not at risk, mark as NA	
A. is there documentation in the health record of appropriate assessment or reassessment of	of the person's risk (risk assessment and skin inspection) on transfer to this ward?
105 0 NO 8 In these decumentation in the basility cancel of someonrists accomment or concentration in the basility cancel of someonrists accomment or concentration.	of the necrosic cirk (cirk preservent and cirks incoartine) on each of the last 2 days? (If is born
for less than 3 days, score for total days of stay)	n tre person a nan ji un assessment and ann mapetorin jen eath er une nat a sejat (n minosp
○ Yes ○ No	
Question 7: is there documentation of an appropriate pressure injury prevention plan for the	person?
Use Units Distributed and the second se	movided to the parson or their carer?
Yes O No	
Question 9: is a pressure injury or injuries documented in the medical record within the last t	hree (3) days?
⊖ Yes ⊖ No	
Question 10: If the patient has an identified pressure injury is there:	
A. Documentation in the health record of the correct location, classification and place when	a the PI developed
Yes OND ONA	increation second shart care also as usual shart if Pana 1
a. Documentation on the wound management chart if greater than stage 1, UK on the skin i Yes No NA	rispection record, chart, care plan or wound chart if scage 1
C. Notification in the incident notification system	
O Yes O No O N/A	
Question 11: Can the patient independently reposition themselves in the bed and the chair? If	the person requires assistance then the answer is No.
C 3 Mar. C 3 Ma	
	contraction of the second
Question 12: If patient is unable to reposition themselves, is there a repositioning regime doc Ves No NA	umented within the nursing care plan?





Pressure Injury Prevalence (%) - Findings

Survey 1 Survey 2 20 20 -18 _____ 18 16 16 -14 14 — 12 _____ Percentage 12 10 -10 -8 6 6 Δ 2 2 0 0 Ward 1 Ward 2 Ward 3 Ward 4 Ward 1 Ward 2 Ward 3 Ward 4 ■ PIP % (all) HAPI % ■ PIP % (all) HAPI %



Pressure Injury Prevalence - Findings

Survey 1



Survey 2



Nurse Surveys - Methods

DEMOGRAPHICS

- Age
- Gender
- Years worked Nurse
- Years worked ward
- Position (EN, RN, CNS/CNE, NUM)
- Qualification
- Employment status

PUKAT 2.0

- Pressure Ulcer Knowledge Assessment Test 2.0 (Manderlier et al. 2017)
- 25 items
- MCQ
- 6 subscales

APUP

- Attitudes to Pressure Ulcer Prevention scale (Beeckman et al. 2010)
- 13 items
- Likert scale
- 5 subscales



Demographic Characteristics

		Survey 1 (n=80)	Survey 2 (n=64)
Age	< 24	14	16
	25-44	47	39
	>45	19	9
Gender	Male	8	11
	Female	72	53
Position	Registered Nurse	57	44
	Enrolled Nurse	23	20
Nursing Experience (years)		10.6	9.5
Experience on Ward (years)		5.2	3.7
Employment status Full time		55	42
	Part time / Casual	25	24



PUKAT 2.0 - Nurses knowledge (% answers correct) Survey 1 & 2





PUKAT 2.0 - Nurses Knowledge (% answers correct) by RN status





APUP - Attitudes towards PI prevention (Survey 1 & Survey 2)

	Survey 1	Survey 2
Personal Competency	9.4	8.9
Priority of prevention	10.4	10.2
Impact of PI	8.5	9.2
Responsibility in prevention	6.9	6.8
Confidence in prevention	6.5	5.2
TOTAL SCORE	40.2	38.8



APUP - Attitudes towards PI prevention (by RN status)

	RN	EN/EEN/AIN
Personal Competency	9.2	9.2
Priority of prevention	10.3	10.4
Impact of PI	8.8	8.8
Responsibility in prevention	6.9	6.7
Confidence in prevention	5.4	4.9
TOTAL SCORE	39.6	39.4



Interviews - Methods

- Interviews conducted at completion of project
 - Nurse Unit Manager
 - Clinical Nurse Educator
 - Pressure Injury Champion (PIP data collection)
 - Group Interview with staff from each ward (4 scheduled)
- Data analysed using Thematic analysis (Braun & Clark 2006)



Interviews - Findings

- 7 individual interviews
- 4 group interviews (28 participants).
- Total of 35 participants
- Focused on what worked for whom & in what circumstances



Interviews - Findings

PIP survey (full ward) – worked well in all settings, data collected on iPads, Independent observer, perceived as positive and contributed to promotion of good practices

 PIP survey (snapshot) – seen as positive, not time consuming, maintained focus (but not enough time between surveys to lead to actions)

Interviews - Findings

- Action Plans "what action plans?"
 - No clinical staff were aware of action plans
 - 2 of 4 wards developed action plans some improvements in processes of care
 - No action plan focused on knowledge
- Nurse surveys (knowledge and attitudes)
 - Too long
 - Too complex
 - No feedback on the "correct" answers

Implications for practice

- Pressure Injury Prevalence surveys provide useful data to improve HAPIs (iPad data collection is feasible)
- Nurses knowledge of Pressure Injuries are focused on the risk assessment processes
- Nurses knowledge of preventing pressure injuries is poor
- Attitudes towards preventing pressure injuries may improve with increased knowledge
- QI projects are likely to be more successful with greater staff engagement on participating wards



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Thanks!

ANY QUESTIONS?

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