



UNIVERSITY
OF MANITOBA

Healthy Skin Wins: A Glowing Pressure Ulcer Prevention Program

Donna Martin, PhD¹, Lisa Albensi, MScN,² Stephanie Van Haute, BN²,

Lorna Guse, PhD¹, Mary Montgomery, OT², Kendra Gierys, BN²,

Maria Froese, PT, BMR-PT², Mavis Lam², RD, Nataliya Basova¹ BN, Rob Lajeunesse, BN²

(1) College of Nursing, Faculty of Health Sciences, University of Manitoba, Winnipeg, MB, Canada, (2) Seven Oaks General Hospital, Winnipeg, MB, Canada



SEVEN OAKS
General Hospital

Background

Pressure ulcer (PU) is defined as a localized injury to the skin or underlying tissue, occurring as a result of pressure and/or shear forces, usually over bony prominences.

In 2013, observation survey of 242 in-patients
Prevalence: 32.7%, with approximately 1/3 being attributed to Stage I ulcers; Incidence: 16.5%

Pressure Ulcer Prevention Program(PUPP)

Healthy Skin Wins



New mattresses hospital-wide - powered therapeutic sleep surface
Modified Braden Scale with interventions, assessments q24 hours in ICU, q48 hours in-patient units
No soaker pads, use of sliders, new incontinence products
Increase awareness and availability of Prevalon boots
Seating assessments on high risk patients by OT
Staff awareness campaign
15-minute on-line tutorial:
https://www.youtube.com/watch?v=0C_AB4qBE2s

Research Questions

- #1 Did an online tutorial produce a statistically significant ↑ in the knowledge level of PUs and PU prevention among health care aides (HCAs), licensed practical nurses (LPNs), registered nurses (RNs) and allied health professionals?
- #2 Did the PUPP produce a statistically significant reduction in the prevalence/incidence rate of PUs?
- #3 What are HCA, LPNs, RNs, and allied health professionals' perceptions and experiences about the PUPP?



Research Design: Mixed Methods

3 Main Components:

1. Pre-test/post-test design (Research Question 1)
18-item PU knowledge assessment tool
Compare mean scores – pre/post online tutorial; paired *t* test
2. Compare observational skin survey prevalence/incidence rates; chi-square
2013 → PUPP → 2014 (Research Question 2)
3. Qualitative interviews (Research Question 3)
Focus groups; Individual interviews

Results

Sample Description: Pre-Test/Post-Test N=80

Characteristic	n	%
Gender		
Male	6	(7.5)
Female	74	(92.5%)
Age in Years		
18 – 25	11	(13.75)
26 – 35	34	(42.5)
36 – 45	14	(17.5)
46 – 55	17	(21.25)
>=56	4	(5)
Employment Status	n	%
Full-time	31	(38.75)
Part-time	49	(61.25)
Years in Current Position		
0 - 5	48	(60)
6 - 10	14	(17.5)
11- 15	10	(12.5)
>=15	8	(10)
Position		
Allied health	29	(36.25)
RN	41	(51.25)
LPN	7	(8.75)
HCA	3	(3.75)
Highest Education		
Diploma	16	(20)
University Degree	45	(56.25)
Graduate Degree	9	(11.25)
Other	10	(12.5)



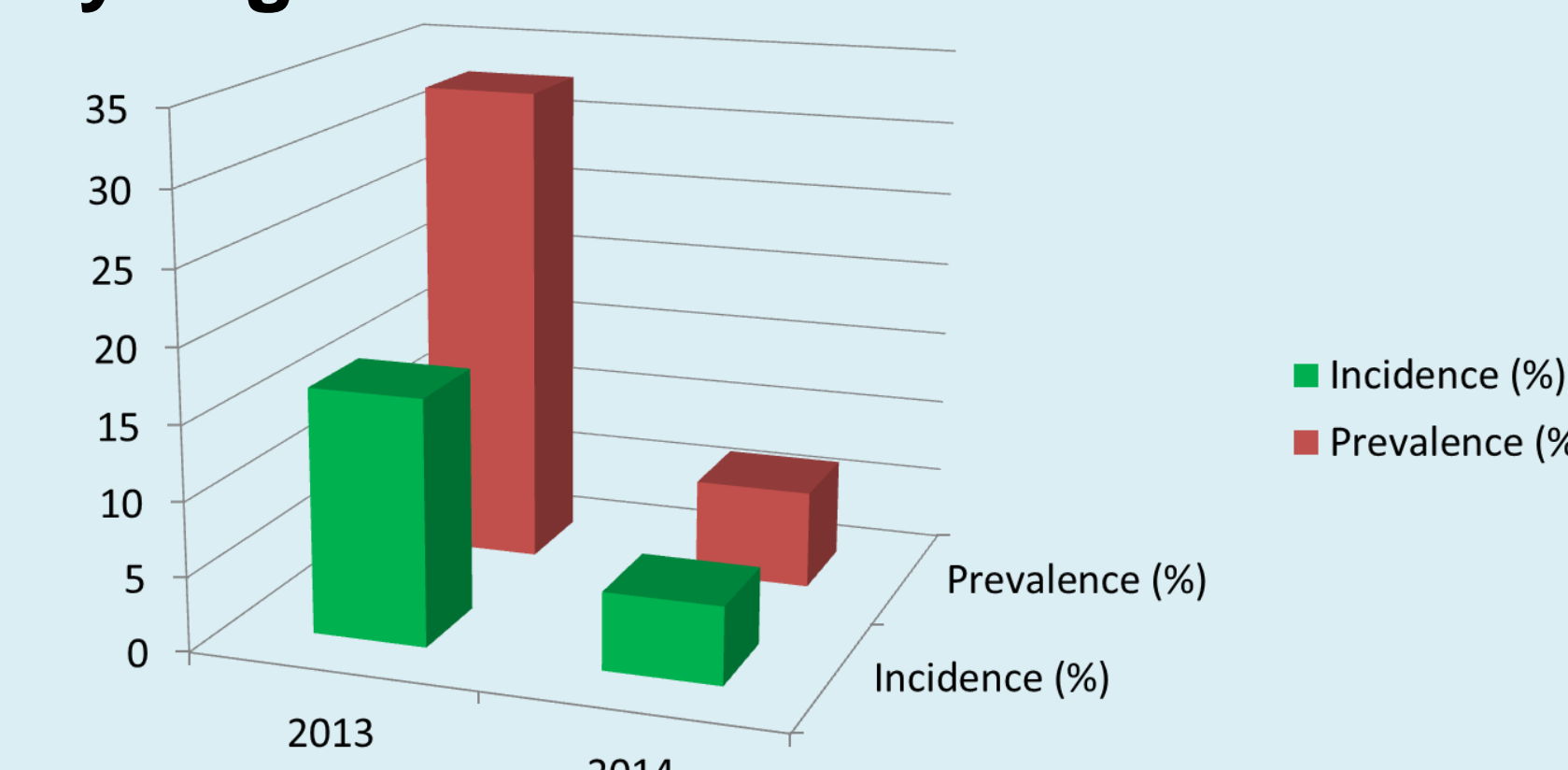
Results Question 1

Paired Samples Statistics	Mean	SD
Pre-Test Score (0-18)	13.325	1.98
Post-Test Score (0-18)	14.3	2.00
95% CI		
<i>t</i>	<i>df</i>	<i>Significance</i>
-4.807	79	.000*

Results Question 2

Chi-square performed, to compare numbers of PUs pre and post PUPP.

In 2013, 241 patients participated in an observational skin assessment with 32.7 % prevalence rate; in 2014, 239 patients were assessed using the same skin assessment tool following the PUPP with a prevalence rate of 6%. The reduction was statistically significant and clinically significant.



Results Question 3

5 focus groups, 7 individual interviews, N = 35

Major Theme: Facilitators of PU Prevention

"It's definitely a combination of everything" Allied Health, Focus Group 2

Physical Resources:

New mattresses

"I did notice a big difference when the whole hospital switched to the new mattresses...6 months to a year later when I realized we weren't getting wounds anymore" Nurse 2

"It's the access to the equipment - that's the biggest thing." Nurse 3

Sliders, Modified Braden, No soaker pads, New products (incontinence), Barrier cream washcloths, Chart for monitoring nutrition, Prevalon boots, Staff awareness campaign, Online tutorial

"Online tutorial. I think, for me, everything within here is important...because information is important." Health care aide focus group 1

"Nutrition assessment and plan is very, very important for the patient." Health care aide focus group 1

Human Resources:

Turning teams, OT, PT, Dietitian, Wound care nurse, Educator "Our educator does a very good job reminding us to work on pressure ulcers" Nurse 2; "Being supportive and listening to what the staff who are actually working with patients have to say" Allied health 1

Major Theme: Barriers to PU Prevention

Lack of Physical Resources:

Lack of equipment – shower chairs, tub plugs
"We need to up-date our Geri-chairs ... Another thing we don't have enough is shower chairs...We steal from the other side." Health care aide focus group 2

Limited staff education

"It would be nice to get involved [in evidence-informed practice]... More communication between nurses and health care aides" Health care aide focus group 2

Need for patient education

"One thing that I don't see here is the patient education piece" Nurse 3



Limited Human Resources:

"Shortage of staff is #1" Health care aide focus group 1

"It would be nice to have more staff...at least at the health care aide level to do the positioning and the turning." Nurse 1

Turning teams

"It can be pretty heavy for the wards to have to reposition 9 or 10 patients every 2 hours. So it would be nice if they had a turning team." Nurse 1

Communication Processes

"A lot of times I feel like there's not very good lines of communication...there's a disconnect." Allied Health 1

Discussion

Strengths: Multidisciplinary approach; Team-building; Quality patient care; data triangulation

Limitations: Observational surveys have limited inter-rater reliability; Unable to pinpoint "best" PUPP intervention

Implications for Practice and Research

Education workshops need to be inclusive and tailored to HCAs

Use and evaluate the modified Braden in other patient care areas;

Revise and test validity/reliability of the PU Knowledge Assessment Tool

Multi-site studies to measure cost-effectiveness of PUPP