1-1-2024

An Educational Intervention Differentiating Between Pressure Injuries and End-of-Life Wounds

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Providence System Nurse Research and Clinical Scholarship Symposium 2024

An Educational Intervention Differentiating Pressure Injuries from End-of-Life Wounds

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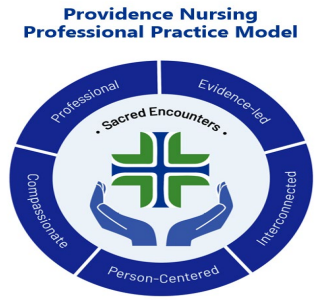
Background



- End-of-life (EOL) wounds are identified in the literature as Kennedy Terminal Ulcers (KTU), Skin Failure (SF), Trombley-Brennan Terminal Tissue Injury (TB-TTI), and SCALE (Skin Changes at Life's End).

- EOL wounds have a similar appearance to pressure injuries (PIs) with a fundamentally different etiology.

Ayello et al., 2019; Delmore et al., 2015; Levine, 2018; Kennedy, 1989; Trombley et al., 2012

Problem Statement

- There is a gap in evidence to knowledge in the differentiation of PIs from EOL Wounds.

- The misclassification of EOL wounds as PIs results in increased Hospital Acquired Pressure Injuries (HAPIs), hospital fines, and less-than-optimal EOL wound management.

Delmore et al., 2015; Levine, 2018;

Providence Nursing
Professional Practice Model

Project Aim

To examine the effectiveness of an educational intervention on EOL wounds in increasing nurse confidence in providing end-of-life care (EOLC) and differentiating pressure injuries (PIs) from EOL wounds.

Research Questions

1. Is there a difference in nurse confidence level related to EOLC delivery after an educational intervention on EOL wounds?

2. Is there a difference in confidence in staging PIs and differentiating PIs from EOL wounds after an educational intervention?

3. Is there a relationship between nurse confidence in:

(a) EOLC delivery and select nurse demographics and
(b) nurse confidence in differentiating EOL wounds from PIs and select nurse demographics?

Methods

- Quantitative quasi-experimental study with convenience sampling.
- Power Analysis determined sample size of 41 was needed for adequate effect size.
- Participant letter invited nurses to participate via blind email. Participation served as their consent.
- Pre and /post-test and intervention link provided during June/ July 2023.
- Instrument: The End-of-Life Professional Caregiver Survey (EPCS) 28 items, 5-point Likert scale (0-4). Maximum EPCS score = 112.
- Demographic questionnaire (10 items). 2 supplemental items:

  Item 29 I feel confident staging PIs

  Item 30 I feel confident differentiating PI from EOL wounds.

Educational Intervention

- Delivered via eLearning PowerPoint video
- Brief review of PIs
- Historical roots of EOL wound research
- Education on types of EOL Wounds
- EOL wound photos
- Criteria to differentiate PIs from EOL wounds

Inclusion and Exclusion Criteria

Inclusion Criteria

- Registered Nurses (RNs) with at least one year experience
- Providing direct care
- Currently employed

Exclusion Criteria

- New Graduate Nurses

Institutional Review Board

- IRB Approval obtained by Providence SJMC and Vanguard University

Analysis of Data

- Q1: Paired samples t-test used to determine differences in nurse confidence related to EOLC delivery before and after the educational intervention.

- Q2: Paired samples t-tests used to determine differences in nurse confidence in staging EOL wounds and differentiating EOL wounds from PIs before and after the educational intervention.

- Q3: Descriptive statistics used to analyze demographic data. Pearson *r* Correlation used to determine: (a) relationships between nurse confidence r/t EOLC delivery and select nurse demographics and (b) relationships between nurse confidence staging PIs and differentiating EOL wounds from PIs and select nurse demographics.

- SPSS version 28

Heterogeneous Participant Sample of Nurses from Multiple sites

Participant Demographics (N = 41)

Age: 20-30 (31%), 31-40 (27%), 41-50 (19%), 51-60 (17%), > 60 (7%)

Gender: Female (81%), Male (19%)

Ethnicity: Hispanic (38%), Black (2%),

Asian (29%), White (33%)

Educational Level: ADN (33%),

BSN (43%), MSN (19%), Doctoral (5%)

Years Experience: 1-5 (55%), 6-10 (21%),

11-15 (9%), 16-20, (0%), >20 (14%)

Participant Affiliations

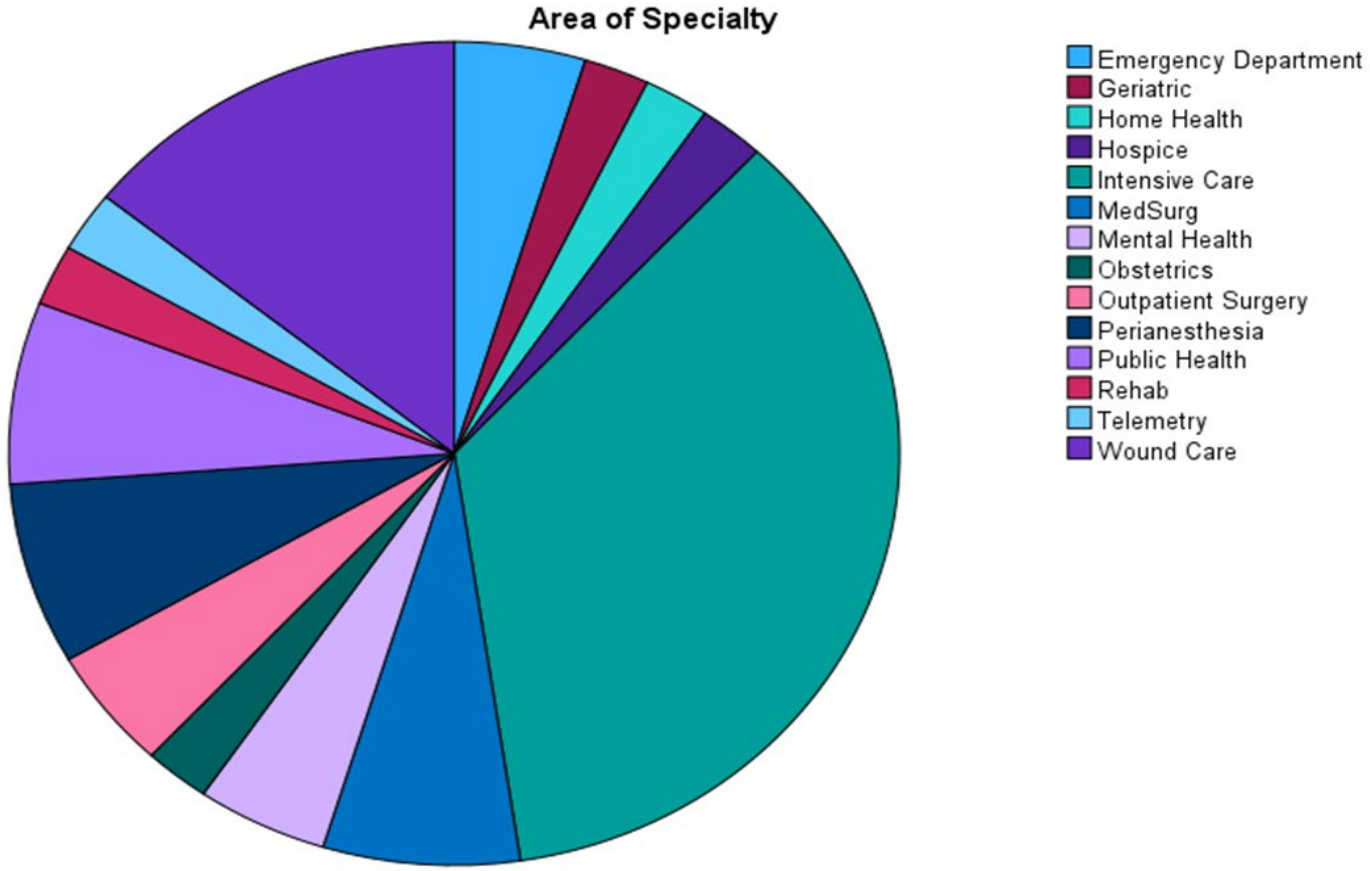
RN to BSN and MSN students

Nursing Professors

Association of Hispanic Nurses

Wound Care Team Nurses

RNs at a Magnet-designated CA Medical Center



Note. Areas of Specialty: ED= 2, Geriatrics=1, Home Health=1, Hospice=1, ICU=15, MedSurg=3, Mental health=2, Obstetrics=1, Outpatient Surgery=2, Peri-anesthesia=3, Public Health=3, Rehab=1, Telemetry=1, Wound Care 6

Findings

EOL Professional Caregiver Survey

- 5-point Likert scale (0=not at all to 4=very much)
- Lower total scores = > Educational needs

Maximum score = 112

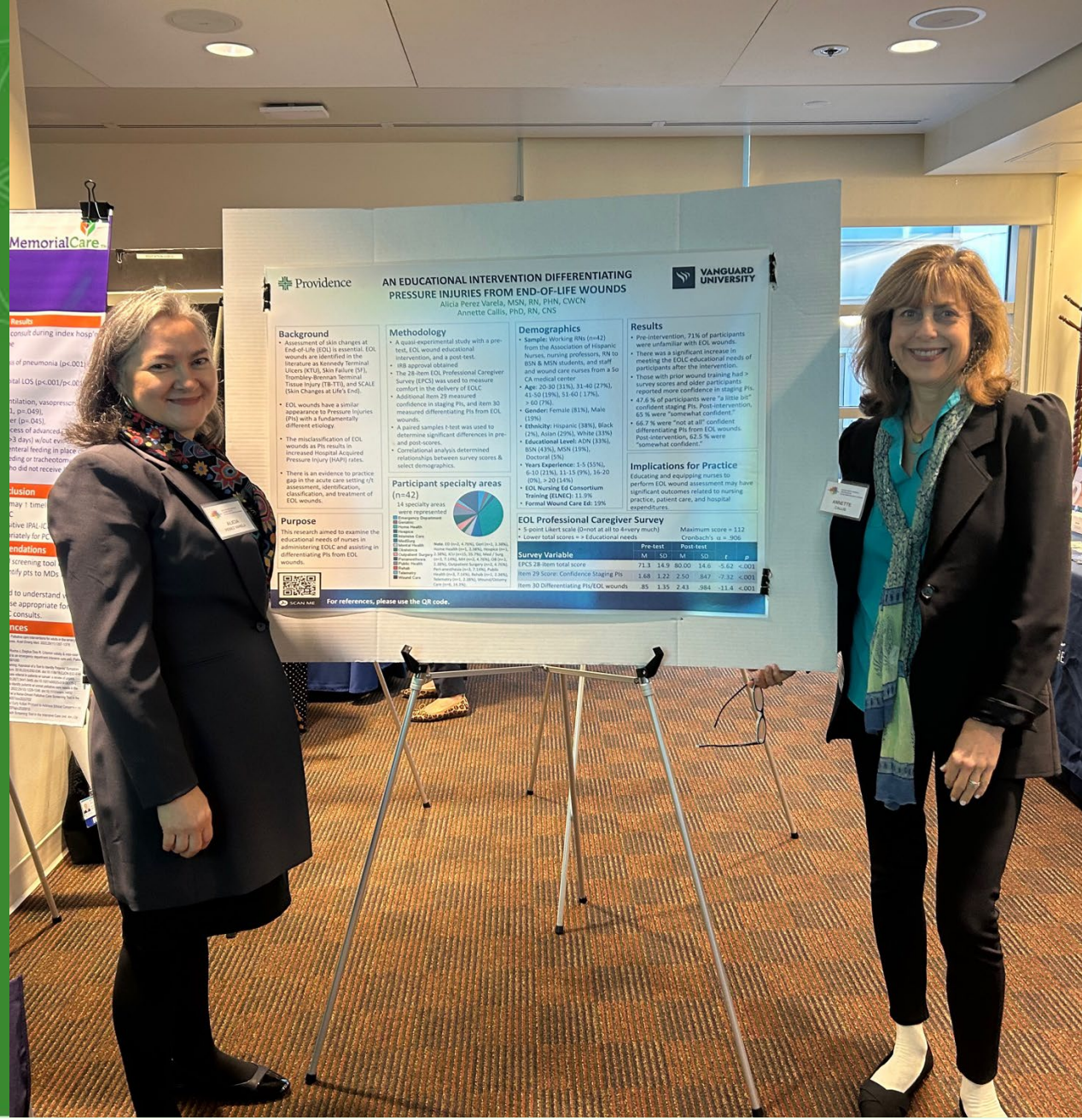
Cronbach's α = .906

Survey Variable	Pre-test		Post-test		*t*	*p*
	M	SD	M	SD		
EPCS 28-item total score	71.3	14.9	80.00	14.6	-5.62	<.001
Item 29 Score: Confidence Staging PIs	1.68	1.22	2.50	.847	-7.32	<.001
Item 30 Differentiating PIs/EOL wounds	.85	1.35	2.43	.984	-11.4	<.001

Further Findings

- Most participants were unfamiliar w/EOL wounds (71.4%, n=30)
- Those with prior wound training had higher overall scores (t=2.814, p=.009).

(Poster Presentation 2023 CACNS)



Further Findings

- Older nurses more confident staging PIs (*r*=.326, *p*=.043)
- Nurses more confident staging PIs were better able to differentiate EOL wounds (r=.442, p=.005).

Correlation Matrix Discrete Demographic Variables and Survey Questions

Variable		1	2	3	29	30	Pretest	Posttest
1. Age	Pearson Correlation	1	.572**	.692*	.326*	.059	.089	.061
	Sig (2-tailed)		.000	.000	.043	.723	.593	.716
	N	42	42	42	39	39	38	38
2. Education	Pearson Correlation	572**	1	568**	.231	.131	.124	.243
	Sig (2-tailed)	.000		.000	.156	.427	.457	.142
	N	42	42	42	39	39	38	38
3. Experience As RN	Pearson Correlation	692**	568**	1	.213	.089	.040	.050
	Sig (2-tailed)	.000	.000		.193	.590	.813	.766
	N	42	42	42	39	39	38	38
29. Confident Staging PI	Pearson Correlation	.326*	.231	.213	1	.442**	.259	.386
	Sig (2-tailed)	.043	.156	.193		.005	.134	.017
	N	42	42	42	39	39	38	38
30. Able to diff. PI from EOL wounds	Pearson Correlation	.059	.131	.089	.442**	1	.219	.267
	Sig (2-tailed)	.723	.427	.590	.005		.205	.105
	N	39	39	39	39	39	35	38
Pre-test Total	Pearson Correlation	.089	.124	.040	.259	.219	1	.807**
	Sig (2-tailed)	.593	.457	.813	.134	.205		.000
	N	38	38	38	38	38	35	38
Post-test Total	Pearson Correlation	.061	.243	.050	.386*	.267	.807**	1
	Sig (2-tailed)	.716	.142	.766	.017	.105	.000	
	N	38	38	38	38	38	35	38

Note: **Correlation is significant at p <.001 level (2-tailed) *Correlation is significant at p <.05 level (2-tailed).

Clinical Implications and Recommendations

- This study showed that the EOL wound intervention significantly increased nurse confidence in EOLC, staging PIs, and differentiating EOL wounds from PIs.
- Ensuring nurses have the confidence to identify and assess EOL wounds are essential in providing optimal EOLC.
- Educating and equipping nurses to differentiate between PIs and EOL wounds may have significant outcomes related to nursing practice, patient care, and hospital expenditures.
- Further studies: (a) Larger sample sizes with specialties that care for dying patients (b) Evaluation of long-term effects of appropriate EOL wound care and decision-making r/t aggressive care in cases of futility, transitions to comfort care and hospice.

Questions? Thank you

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