

IMPROVING CARDIAC NURSES' KNOWLEDGE, ATTITUDE, AND CONFIDENCE IN DELIVERING PALLIATIVE CARE FOR HOSPITALIZED PATIENTS WITH HEART FAILURE

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Background

Heart failure (HF), a chronic, common complex syndrome, remains burdensome & affects 37.7 million people globally (Vos, 2012). HF, rarely cured, is a life-limiting disease with a poor prognosis (Mozaffarian, 2016). Most palliative care (PC) research focuses on improving quality of life of cancer patients, but patients with HF, do not receive the same access to PC as other life-limiting diseases (Beernaert, 2013).

A review of the literature has documented inadequate HCP PC knowledge clearly caused a nurse-patient communication barrier in discussing health care options in the acute care setting (Dunlay, 2015).

Translation Framework

Knowledge-to-Action framework guided the project from tool development through project implementation via a series of systematic steps.

Aims

- Measuring the percentage of nurses that complete a PC education program,
- Evaluate over time the effectiveness of a PC education program on changing cardiac nurses'
 - Knowledge level of PC,
 - Attitude toward care of the dying, and
 - Confidence level providing PC for HF patients.

Methods

Design

- Interventional 1 group pretest posttest and 1month follow up posttest within group comparison design.

Setting & Sample

- Inpatient cardiac unit in a 284-bed community hospital in the Midwest United States
- Johns Hopkins University IRB deemed the project quality improvement.
- All staff nurses were invited to participate.

Table 1. Demographics of Study Sample (N=21)

Age, M (SD)	37.3 (11.53)
Gender, n (%)	
Female	14 (66.7)
Male	7 (33.3)
Race, n (%)	
Caucasian	8 (38.1)
Black	3 (14.3)
Hispanic	3 (14.3)
Asian	6 (28.6)
Other	1 (4.8)
Clinical experience in years, M (SD)	9.0 (7.60)
Highest degree, n (%)	
Bachelor	13 (61.9)
Associate	8 (38.1)
Prior clinical experience, n (%)	
Hospice/Palliative care	5 (23.8)
No Hospice/Palliative care	16 (76.2)
Prior palliative care education, n (%)	
Continuing education course	5 (23.8)
Nursing conference	1 (4.8)
College class	6 (28.6)
None	9 (42.9)
Number of HF patients cared for in last week, M (SD)	11.8 (6.07)
Number of end-stage HF cared for in last week, M (SD)	6.7 (4.04)
Number of dying cared for in last month, M (SD)	2.2 (1.61)
HF= heart failure	

Intervention

End-of-Life Nursing Education Consortium (ELNEC) provided the intervention foundation.

The intervention blended web-based & face-to-face learning over 7.5 hours.

- Web-based modules: Voice over Power points teaching comprehensive PC.
- Face-to-face class: Practice communication skills & discuss case studies/vignettes; answer questions.

All surveys completed at pre-, post-, and 1month follow up & accessed via Qualtrics.

- Knowledge Survey** - Multiple choice questions addressing comprehensive PC.
- Attitude Survey** – Likert scale (1=strongly disagree to 5=strongly agree), sum score 30-150, higher score shows a more positive attitude towards caring for the dying.
- Confidence Survey** - Likert scale (1=much less to 4=much more), sum score 6-24, higher score shows perceiving better preparation to care for the dying.

Results

Data Analysis

Statistical analysis used SPSS Statistics Version 24. Demographics were analyzed with descriptive statistics. Repeated measures ANOVA assessed change in sum scores on Knowledge, Attitude, and Confidence.

Demographics (Table 1)

- Average 9 years nursing experience.
- Care for 7 end-stage HF patients in the last week and 5 dying patients in the last month.
- 76% have no prior clinical PC or hospice experience
- 43% have no prior PC education

Aims (Table 2)

- 41% participation rate.
- Significant increase in Knowledge, Attitude, and Confidence scores after attending the education program.
- Knowledge, Attitude, and Confidence scores maintained at 1 month follow up.

Discussion

- Pre-intervention Knowledge scores show over half the nurses did not meet the minimum knowledge competency and scores were lower than in other research. The majority had not worked in PC/hospice and have not received prior PC education. This is important as they routinely care for HF patients and specifically at the end-stage of disease.

- Pre-intervention Confidence scores were lower than in other research. The scores significantly improved at post-intervention and although increased at 1month follow up, did not reach not significance. It appears implementing knowledge improved confidence and scores may reach significance if repeated later.

Table 2. Knowledge, Attitude, and Confidence Survey Scores at Pre-Intervention, Post- Intervention, and 1month follow-up

Survey	Mean	SD	95% CI		Wilks' Lambda	p value	Partial eta	df	F
			Upper	Lower					
Knowledge (N=17)									
Pre-Intervention	36.9	5.24	34.1	39.4	.20	<.001	.80	2,15	29.8
Post-Intervention	42.3	3.74	40.1	43.6					
1month follow up	43.2	3.03	42.2	44.8					
Attitude (N=16)									
Pre-Intervention	122.4	8.49	118.3	126.4	.50	.008	.50	2,14	6.9
Post-Intervention	130.4	10.04	125.6	135.4					
1month follow up	130.6	10.54	125.7	135.9					
Confidence (N=17)									
Pre-Intervention	16.7	3.89	14.8	18.4	.39	.001	.61	2,15	11.6
Post-Intervention	19.9	4.12	17.6	21.5					
1month follow-up	20.9	3.11	19.3	22.4					

Overall, there was a significant increase in Knowledge, Attitude, and Confidence scores after participating in an ELNEC-based PC education program

Conclusion

- Nurses are important members of an interdisciplinary team caring for HF patients.
- However, nurses cannot talk to patients about topics they do not understand or feel confident discussing.
- There was a significant increase in Knowledge, Attitude, and Confidence scores after participating in an ELNEC-based PC education program.
- Knowledge alone will not change bedside practice. Must also incorporate communication skills training.
- Future studies should measure the success of transferring PC education to the nursing practice.

Limitations

Convenient sample size did not meet a priori power analysis. Repeated measures format may allow for repeat testing bias.

References

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