

ECG Memento® – An Innovative Approach to Adult Bereavement Care

A Pilot Study

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BACKGROUND

- 20% of Americans take their last breath in the intensive care unit (ICU). Prior to the 20th century, people used to die at home. Patient/family members prepared for death, said good-bye, completed end-of-life closure tasks and created memories.
- Most of the bereavement interventions for families come from the pediatric world. The concepts of Continuing Bonds, Object Linking and Attachment Theory have been used to aid the mourning process. Yet, there is no clinical-based research to support many of these interventions.
- This study addresses the gap in adult bereavement care trialing a novel intervention to improve end-of-life care for dying patients.

STUDY PURPOSE

- Determine effectiveness of the ECG Memento® as a transitional object for families, who have experienced the loss of a loved one in the Intensive or Intermediate Care—as they transition from anticipatory to bereaved status and evaluate its effect on nurses' satisfaction with the expression of the grief process and the integration of the ECG Memento® as part of the bereavement care.

STUDY AIMS

PRIMARY

- Evaluate integration of ECG Memento® as an tool to aid families in the bereavement process.
- Examine the effect of ECG Memento® as a transitional object on the continuing bonds on the bereavement experience of the family.
- Examine the impact of ECG Memento® on staff and family satisfaction.

SECONDARY

- Examine the role of the RN and their experience/satisfaction facilitating the use of the ECG Memento® as a mediating object to facilitate and meet the emotional and psychosocial needs of families experiencing the death of a loved one.
- Examine the role staff nurse explanatory variables (demographic; experience with death and dying) that may influence the death experience.

METHODOLOGY

- Prospective, descriptive study used a posttest survey design, to evaluate and describe the effect of the ECG Memento® on the anticipated bereavement process among families, in the critical care/intermediate cardiac monitoring units who anticipate the loss of a loved one or have lost a loved one in the units.
- Convenience sample (N=50) of ICU patients, who were actively dying with a Do Not Resuscitate (DNR) or Comfort Care order/ recently deceased patients were study eligible.

ECG Memento® (3"ECG Strip) Laminated/Mounted inside a Note Card Signed by Nursing Staff



MEASUREMENT

- Investigator Developed Demographic Log
- Satisfaction with Bereavement Experiences Questionnaire (SBEQ)
- Quality of Dying and Death in the Intensive Care Unit-Survey for Nurses (QODD)
- Charlson Comorbidity Index Score (CCI)

STUDY RESULTS

Table 1. Characteristics of Subjects

Characteristics of patient who died:	N=50
Male, %	56.0%
Age, mean (SD)	72.0 years (11.0), range: 45-89 yrs.
Religious affiliation, %:	
Catholic	44.0%
Protestant	42.0%
Other	4.0%
None, Not Religious	10.0%
Race, %:	
African-American	12.0%
Asian/Pacific Islander	16.0%
Caucasian	48.0%
Hispanic	18.0%
Other	6.0%
Hospital days, mean (SD), median [IQR]	13.3 d (12.6), 8 d [4-16]
>7 days in hospital, %	54.0%
ICU days, mean (SD), median [IQR]	9.5 d (9.5), 7 d [3-13]
>3 days in ICU, %	70.0%
CCI age-adjusted, mean (SD)	9.4 (4.0), range: 2-17

IQR=25th and 75th percentiles

Table 3. Family Satisfaction with Bereavement Experience Questionnaire (SBEQ)

SBEQ- Subscale scores: [1=very satisfied, ..., 4=very dissatisfied]	N	Mean (SD)	Median [IQR]
1. Hospital Experiences	28	1.5 (0.8)	1.1 [1.0-1.6]
2. Personal Responses	28	1.6 (0.8)	1.4 [1.0-1.9]
3. Ritual Experiences	28	1.3 (0.6)	1.0 [1.0-1.2]
4. Post Hospital Experiences	24	1.9 (1.0)	1.6 [1.0-2.8]

- Families reported the ECG Memento® (25%) extremely helpful; (35.7%) very helpful; (14.3%) somewhat helpful; and (25%) found it slightly or not at all helpful.
- (39.3%) viewed it daily and found comfort; (10.7%) viewed ECG 2-3 days/week; (14.3%) viewed ECG 1-day/week; and (21%) rarely; (14.3%) never viewed the ECG.

Table 2. Characteristics of Family Member(s)

Characteristics:	N=28
Female, %	89.3%
Age:	
<40 years	10.7%
40-49 years	21.4%
50-59 years	21.4%
60-69 years	32.1%
70-79 years	14.4%
Race:	
African-American	7.1%
Asian/Pacific Islander	17.9%
Caucasian	50.0%
Hispanic	17.9%
Other	7.1%
College graduate, %	42.9%
Children, Yes %	82.1%
Number of children, mean (SD)	1.8 (1.2)
Perform acts of prayer daily, %	57.1%
Death of family member/friend unexpected	50.0%
Person who died was:	
Parent (or parent-in-law)	46.4%
Spouse/Partner	46.4%
Sibling	7.1%

Table 4. Nurses rating of QOD Experience for Patients

Excluded those who responded "Don't Know," N/A, or missing:	N	% Nurses	Mean (SD)	Median [IQR]
1. Having control of his/her pain	25	8.0%	7.6 (2.0)	8 (7-9)
2. Having control over what was going on around his/her	21	28.6%	7.2 (2.7)	7 (5-10)
3. Breathing comfortably	34	17.6%	7.4 (2.1)	8 (6-9)
4. Keeping his/her dignity and self-respect	35	48.6%	8.7 (2.1)	9 (8-10)
5. Spending time with his/her spouse or partner	25	52.0%	8.8 (1.9)	10 (9-10)
6. Spending time with his/her children	29	58.6%	9.0 (2.1)	10 (9-10)
7. Spending time with other family and friends	32	58.4%	9.3 (1.2)	10 (9-10)
8. Being touched or hugged by loved ones	33	60.6%	9.1 (1.3)	10 (8-10)
9. Having one or more visits from a religious or spiritual advisor	21	52.4%	9.1 (1.5)	10 (9-10)
10. Having a spiritual service or ceremony before his/her death	14	57.1%	9.0 (1.5)	10 (8-10)
RN QOD (0-10 scale)	36	38.9%	8.5 (1.5)	8.9 (7.7-9.6)
RN QODs (0-100 point scale)			84.8 (15.4)	88.6 (76.9-96.3)

^a Valid percent of nurses who responded to item (N is denominator)
^b Rounded mean value for RN QOD scale (% with RN QOD value ≥9.5)

DESCRIPTION OF NURSES' CHARACTERISTICS OF QUALITY OF DYING AND DEATH IN THE INTENSIVE CARE UNIT-SURVEY FOR NURSES

- Total of 38 RNs completed the QODD, yet only 27 had complete data; 16.1 years (range of 1-35 yrs) as RN, and 11.3 yrs ICU experience (range 0-34 yrs); 63% Baccalaureate; 7.4% Masters;
- (40.7%) report no training on End of Life (EOL) topics; (40.7%) had <4hrs EOL training; (11.3%) had >4hrs training. (7.4%) had taken ELNEC training/other EOL.
- (100%) 33/33 RNs felt the ECG Memento was very well received by families/significant others.

CONCLUSIONS

- The ECG Memento® provides a tangible connection to temporarily aid families in the grieving process, yet, further studies are warranted.
- 100% nurses felt the ECG Memento® was well received, however, only 40% felt patient symptoms were controlled.

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