

Evidence-Based Practice Awareness: Peer-to-Peer Dissemination

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PSW



Context in nursing...

EBP “essential for nurses to establish who they are, what they do, and what effect they have on patient outcomes”

Richardson, Miller & Potter, 2002

64% of RNs surveyed not even familiar with the term “evidence-based practice”

67% of RNs frequently or always asked peers or colleagues for answers to clinical questions.

Pravikoff et al., 2005



Study Framework:

- **Disciplined Clinical Inquiry (DCI)**
A change process model using action research methods to “empower nurses to collaboratively participate in identification and solution of problems directly affecting their day-to-day practice”

Sanares & Heliker, 2002



Design & Methods

- Quasi-experimental design plus DCI
- Unit pairs; data collection at baseline, 4, 12 & 24 weeks
- NRC member + staff decide activity to increase EBP awareness
- Activity implemented X 8 weeks
- Comparison unit next study unit



Outcome measures

- **EBP Belief Scale** (Melnik & Fineout-Overholt, 2003)
- **EBP Implementation Scale** (Melnik & Fineout-Overholt, 2003)
- **EBP Cognitive Knowledge Test**
- **# lit searches, #unit policies with levels of evidence/research refs**
- **NDNQI RN satisfaction survey:**
 - RN-RN interaction, autonomy, practice decision-making



Sample demographics

- n = 91 RNs in 9 areas
- Median = 7 yrs as an RN & 3 yrs on the current unit
- 45% with diploma or AD, 41% with BS, 2% (n=2) with MS as highest nursing degree
- 38% “don’t know much” about EBP



Instrument psychometrics

- EBP Beliefs Scale

- Cronbach's alpha = .89 time 1; .93 time 2
- Weak construct validity time 1: 15 of 16 items loaded $>.40$; 3 factors before $>50\%$ of variance explained
- Adequate construct validity time 2: all 16 factors loaded $>.6$, 1 factor = 58% of variance

- EBP Implementation Scale

- Cronbach's alpha = .92 time 1; .98 time 2
- Fair construct validity time 1: all items loaded $>.440$; 2 factors explained 56.2% of variance
- Adequate construct validity time 1: all items loaded $>.6$; 1st factor explained 77% of variance

- EBP Cognitive test

- KR20 = .051 time 1; ^{PSW}167 time 2



EBP outcomes: intervention units

- EBP Beliefs (n=36, 15, 0)
 - Baseline mean=**3.35** (.43) on 1-5 scale; time 2 mean=**3.45** (.67)
 - Chi sq. = .000 p = 1.0
- EBP Implementation (n=27, 21, 8)
 - Baseline mean=**0.46** (.42) on 0-4 scale; time 2 mean=**1.11** (1.04); time 3 mean=**1.19** (.87)
 - Chi sq. = 6.0, p = .05
- EBP Knowledge (n=34, 17, 5)
 - Baseline mean=**4.82** (1.38) on 0-9 range; time 2 mean=**6.0** (1.46); time 3 mean=**6.8** (1.3)
 - Chi sq. = 2.53, p = .28



Intervention vs control

- EBP Beliefs time 2

- Mean: int. = **3.45**, cont. = **3.23**
- Non-significant difference: $p=.15$
ANCOVA, power=.347, $p=.24$ (Mann-Whitney U)

- EBP Implementation

- Time 2: int. = **1.11**, cont. = **.26**
 - non-significant difference: $p=.255$
ANCOVA, power=.250
- Time 3: int. = **1.19**, cont. = **.17**
 - non-significant difference: $p=.33$
ANCOVA, power=.142



What to do in the face of statistical non-significance...

- **Celebrate incremental success!**
 - Scores did improve over time
 - Intervention group was higher
- **Examine the findings**
 - Small sample = low power
 - Threats to validity of EBP scales
 - Threats to both reliability & validity of EBP knowledge test

