Transitions in Care
EBP: Myths and Realities

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Objectives

• Overview knowledge regarding transitions in care to improve patient outcomes.
• Identify the myths and realities of promoting knowledge uptake at the point of care delivery.
• Identify principles of partnerships for EBP and research
• Discuss visions of the future for EBP and translation science.

Evidence-Based Practice

• Integration of best research evidence with clinical expertise, patient values, preferences, and culture/ethnicity (Sackett et al, 2000)

Conduct of Research

• Systematic study of a phenomenon such as testing an intervention to improve self-care of individuals with heart failure.

Transitions in Care Research

• Nurse scientists lead the research in this area – Mary Naylor; Gerri Lamb; Dorothy Brooten as examples
• The term "care transitions" refers to the movement patients make between health care practitioners and settings as their condition and care needs change during the course of a chronic or acute illness.
Challenges in this Field of Research

• Terminology and Definitions
  – Care Transitions
  – Coordination of Care; Case management; Navigators
  – Handoffs
• Measures of processes and outcomes
  – Readmissions
  – ED visits
  – Self-care management
  – Satisfaction
• Populations (e.g. HF; diabetes; stroke; complexity)
• Model of care delivery

Transitions of Care: The Intervention

• Active ingredients
• Interaction of ingredients
• Dose – how much of each
• Who is the bread maker(s)

Care Transitions is A Team Sport

yet all too often we don't know who our teammates are, or how they can help.

Some Commonalities Across Interventions

• Screening/identification of high risk populations
• Care management to assure continuity – coordination of care; symptoms, meds
• Teams – led by experienced RN, APN
• Collaboration among clinicians and sites of care delivery
• Communication, communication, communication
• Patient and care-giver engagement
• Patient and care-giver education/instruction
General Impact

- Decrease costs
- Decrease hospital readmissions, ED visits
- Improvement in self-care
- Patient and caregiver satisfaction
- Improvement or lessening decline in disease specific measures (e.g. HgbA1c; symptoms)

Transitional Care

Mary Naylor, PhD, RN, FAAN
University of Pennsylvania

- Transitional care—range of time limited services that complement primary care and are designed to ensure health care continuity and avoid preventable poor outcomes among at risk patient groups as they move from one level of care to another, among multiple providers and across settings.
- http://www.transitionalcare.info/
  - Providers and clinicians
  - Consumers and families
  - Purchaser and policy maker

Transitional Care Model (TCM)

Unique Features

Care is delivered and coordinated
...by same advanced practice nurse
...in hospitals, SNFs, and homes
...seven days per week
...using evidence-based protocol
...with focus on long term outcomes

Core Components

- Holistic, person/family centered approach
- Nurse-coordinated, team model
- Protocol guided, streamlined care
- Single "point person" across episode of care (relational/management continuity)
- Information systems that span settings (communication continuity)
- Focus on increasing value over long term

Across Reported RCTs, TCM has...

- Increased time to first readmission or death
- Improved physical function and quality of life*
- Increased patient satisfaction
- Decreased total all-cause readmissions
- Decreased total health care costs

*Most recently completed RCT only


www.transitionalcare.info

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**Gerri Lamb’s Work on Care Coordination**

**Children’s Hospital of Iowa**

**Development and Implementation of a Protocol for Transfers Out of the Pediatric Intensive Care Unit**

Natalie R. Van Wagen, RN, MN, emacs
Charmanee Kleiber, RN, PhD
Barbara Freyenberg, RN, MS, CCRN

Gerri Lamb’s Work on Care Coordination

- Decrease in stress and anxiety
- Improved knowledge about transfer process
- Increased understanding of differences in care on general units versus PICU.
- Expectations of general care unit.

Table 1: Protocol for transferring patients from the pediatric intensive care unit (PICU) to the pediatric general care unit

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The PICU nurse transferring the patient gives the transfer letter to the patient’s family before or at the time of transfer</td>
</tr>
<tr>
<td>2</td>
<td>The PICU nurse reviews routines followed in the general care unit with family</td>
</tr>
<tr>
<td>3</td>
<td>The PICU nurse initials the transfer sticker found on the patient’s transfer record after completion of steps 1 and 2</td>
</tr>
<tr>
<td>4</td>
<td>The general care unit nurse also reviews the unit’s routine and asks if the patient’s family has any questions when the patient is admitted to the pediatric general care unit</td>
</tr>
<tr>
<td>5</td>
<td>The general care unit nurse provides the patient’s family a tour of the pediatric general care unit</td>
</tr>
<tr>
<td>6</td>
<td>The general care unit nurse initials the transfer sticker after steps 4 and 5 are complete</td>
</tr>
</tbody>
</table>
Being Cared for on Multiple Inpatient Units

What is the effect of a patient residing on multiple inpatient units during hospitalization on:

- Resource use?
- Clinical outcomes?

Sample: 7851 patients > 60 years of age
1 unit = 31%; 2 units = 35%; 3-4 units = 21%; > 5 units = 13%.

(Krack et al, 2008) Funded by NINR R01 NR05331

Findings

Patients that resided on a greater number of units:
- Less Patient Teaching and Discharge Planning
- Longer lengths of stay
- Greater total hospital cost
- Higher likelihood of:
  - Nosocomial infections
  - Adverse occurrences
  - Falling
  - Medication errors
  - Discharged to a location other than home

PATIENT PERCEPTIONS AND EXPERIENCES WITH HOSPITAL FALLS

Jia Liu, MSN, Jose Galinato, BSN, RN, Mary Montie, PhD,
Marita Titler, PhD, RN, FAAN, University of Michigan School of Nursing
Molly A. Todd, MS, RN, NE-BC, Marcia Hegstad, RN, MN, ACNS-BC, CDE, BC-ADM.

Aims of the Study

The pilot study addresses the following specific aims:

- To describe hospitalized, older adults’ (>60 years) perceptions of their risk for falling during hospitalization and interventions to reduce their risk
- To describe older adults’ perceptions, after discharge, of the fall prevention interventions used during hospitalization
- To describe, following discharge, older adults’ perceptions of discharge instructions received about fall prevention

Theme

Major Themes From the In-Hospital Interviews

Informants perceived that they were not at risk for falling during hospitalization.

Theme

Major Themes From the In-Hospital Interviews

- "No... at all... At the first time she (the nurse) told me (not to walk alone), I told her that’s not necessary... she says, ‘this drug will affect you, we need to be with you’, and then I did realize they were right. It really weakened me, and I was very dizzy.”
- "No... You just have to really slow down when you get out of bed... (Nurses) put the sign out of the doors, that means they’re more aware of it, and they’re making sure the staff is more aware of it.”
- "No, because there is enough people around when I get up go to the bathroom. They all helped me.”
Informants perceived that the intervention provided by healthcare providers were not necessarily fall prevention interventions.

"I don't think they (nurses or doctors) have talked about falling, but they've taught me how to get into the bed and out of the bed...not fall back, or how to hold on to the walker...all of the things you need to know in order to successfully move around without damaging yourself."

"Truthfully, they haven't said anything...The first time I got up, they were here to make sure that I could walk ok, and make sure I came back ok...They just keep the room clean, and they keep obstacles out of the way."

"Uh, I don't know if they have actually told me anything about falling...We've gone over with the therapist that everything about standing up or getting above the bed, and out of the chair, and things like that, but not necessarily for falling."

Informants perceived the discharge instructions did not include information about falls prevention.

"I don't recall being told anything... I was interviewed by the case manager, and she was very interested in the layout of my home, as far as entrances, exits, uh, that had something to do with falling."

"There wasn't any discussion of that... They have probably told me that given the medication that I need to take precautions, when I get up, walk slowly and make sure that I'm heading towards something. If I don't want to fall over, I could catch myself."

"No, nothing... (They told me) if you need some assistance, ask for it. Don't try to do it on your own."

Transitions of Care Research: Hints and Tips about Translation to Practice
- Patient population of focus
- Engage patients and caregivers in the design
- The intervention – be specific about activities and role of each discipline
- Try/pilot with refinement as necessary
- Re-engineering work flow or processes
- Evaluate – ongoing; pre, during, and “post”
- Leadership support and commitment

EBP Examples
Why Listen to Bowel Sounds?

Diane Madsen, RN
(see December 2005 AJN)

Literature Summary

- Auscultation of bowel sounds first proposed in 1905 (Cannon - reported in Nachlas, Younis, Roda, et al, 1972)
- Motility involves electrical activity coordinated with motor/muscle contraction leading to propulsion (Livingston & Passaro, 1990)

- Monitoring bowel sounds does not serve to indicate recovery of motility s/p abdominal surgery patients (Huge, et al, 2000)

EBP Standard

- Primary markers of return of GI motility (Bauer et al, 1985):
  - First flatus
  - First BM
- Additional markers of return of GI motility:
  - Return of appetite
  - Benign abdomen or absence of other symptoms
- Monitoring for complications

Family Presence

- Restricted visiting of patients in ICU - every 2 hours; 10 minute visits; immediate family members; no children
- Flexible visiting practices
- Family presence

Family Presence in Care Delivery Settings

- Standard of care
- Is an evidence-base for this practice
- Enhances communication
- Informs our practice – family member’s knowledge of their loved one

Family Presence

- During rounds
- In critical care settings
- During anesthesia induction
- In the emergency treatment center
- Pediatric ICU
- Neonatal ICU – sibling visitation

The Way Forward

- Examine values and beliefs regarding family centered care
- Is signage congruent with practices and promotion of family presence?
- What support services are readily available?
- What do you do to promote family-centered care?
- What system changes are needed?

Myths and Realities of Implementation

Implementation is a process
Program of Research

- Focuses on 1) testing implementation interventions to improve knowledge uptake and use to improve patient outcomes and population health, and 2) explicating what implementation strategies work for whom, in what settings, and why.

Funded Projects – Translation Science

- Evidence-Based Practice: From Book to Bedside (PI: Titler, R01 HS10482; AHRQ, 1.5 million)
- Book to Bedside: Sustaining Evidence-Based Practices in Elders (PI: Titler, R02 HS10482; 0.5 million)
- Cancer Pain in Elders: Promoting EBPS in Hospices (PI: Herr; Co-PI Titler; R01CA115383; 2.6 million)
- Advancing Quality Care Through Translation Research (PI: Titler R13 HS014141)
- Moving Beyond Fall Risk Scores: Implementing fall prevention interventions that target patient specific fall risk factors (Titler and Conlon RWJ INQRI 68266)

Funded Projects Co-Investigator

- Dissemination of Tobacco Tactics versus 1-800-QUIT-NOW for Hospitalized Smokers. 1U01HL105218-01.Pi: S. Duffy. 2010-2014
- Effectiveness of Smoking Cessation Guidelines in the ED. 1R21 DA021607 PI: D. Katz, 2008 - 2011
- Statewide Implementation of Guidelines to Control MRSA. CDC. PI: L. Herwaldt, 2007-2010

Illusions about Implementation

- We just need to tell them what to do
  - “I told them what to do and they don’t change”
- Clinicians will remember the change once they are told
  - Once should be enough
  - Clinicians can be more watchful so they will remember to use the new way
- I just need to find the one right way to implement a practice change

Model to Guide Implementation


Multifaceted strategies are necessary to translate research into Practice (Greenhalgh et al, 2005)
Myths

- Dissemination of trustworthy practice guidelines promotes use of EBPs.
- The evidence is strong, thus clinicians will change their practice – we just have to show them the evidence.
- Clinicians care about the EBP topic (e.g. fall prevention; CAUTI)
- An EBP standard will change practice
- Yes, there is an evidence base for this ….; the evidence shows that ….

Realities about the EBP Topic or Innovation

The Topic Matters

“I just realized something. This study isn’t that important.”

Reality: Characteristic of the EBP Topic that Influences Adoption

- Complexity of EBP (simple versus complex)
- Relative advantage of EBP – effectiveness, relevance to the task, social prestige
- Compatibility with values, norms, work flow and perceived needs of end-users: clinicians, patients and families
- Strength of the evidence – needs to have an evidence-base.
- Leader/facilitator needs to have an understanding about the evidence-base; articulate of the evidence source (authors, year).

Reality: Important Principle

- Attributes of the EBP topic as perceived by users and stakeholders (e.g. ease of use, valued part of practice) are neither stable features nor sure determinants of their use.
- Rather it is the interaction among the characteristics of the EBP topic, the intended users, and a particular context of practice that determines the rate and extent of adoption.

Reality: Strategies for adoption related to characteristics of the EBP topic

- Creating interest and excitement about the EBP topic.
- Practitioner review and use of the EBPs to fit the local context - localization.
- Use of quick reference guides and decision aides
- Use of clinical reminders – CDS; electronic reminders.

Fall Prevention Bundle

- Focus on interventions that reduce or modify individual risk factors.
- Studies with sustained reductions in falls have focused on identifying individual fall risk factors (rather than ticking boxes to get a score).
- Put in place interventions to address each risk factor, used a fall as a learning opportunity to improve care,
Fall Prevention Interventions Targeted to Patient Specific Risk Factors

- Mobility (e.g. gait, lower limb weakness)
- Elimination (e.g. urgency, frequency, diuretics)
- Medications
- Cognitive and mental status
- At risk for serious injury

You “Otter” Wash Your Hands Campaign at ANMC

Implementation Model

Myths

- We stay abreast of the latest evidence in our practice.
- It is feasible to know all of the latest evidence for healthcare practice.
- Clinicians learn about new evidence from?
- We just need to educate them about the EBP – didactic presentation preferred.
- Focus on nursing practice
Realities

- Most clinicians learn about the evidence for practice from a trusted colleague
- Explosion of evidence today; know evidence sources; use EBP guidelines (critique them 1st)
- Electronic world – use search engines (not just google scholar)
- Education is necessary but not sufficient to change practice (attend to both knowledge and skills)

Realities

- Interdisciplinary and trans-disciplinary perspective of the EB practice (multiple disciplines)
- Who will be influenced by the EBP? Who will be users of the EBPs? Stakeholders
- Patient centered

Reality: Communication factors that influence adoption

- Interpersonal communication channels
- Methods of communication
- Social networks of users

Communication

The Stickiness Factor:
There is a simple way to package information that, under the right circumstances, can be irresistible. Memorable ideas spur us to action.

(Adapted from 2012)

Reality: Strategies for adoption r/t communication

- Interactive education is more effective than didactic education alone.
- Clinicians need the knowledge and skills to carry-out the EBPs.
- Must consider patient and family values, culture, preferences, and stories
- Key messages at the site of care
University of Michigan School of Nursing

Leading the way.

University of Michigan School of Nursing

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Leading the way.
Reality: Communication Strategies

- Opinion leaders
- Change champions – in unit/clinic
- Educational outreach/academic detailing – topic expert; meets one-on-one with practitioners in their setting (“site visits” with rounding)

Opinion Leaders

- Clinical experts who are influential among their peers and set the standard
- Effective in changing behaviors of clinicians because their colleagues trust them to evaluate the EBP and local situation
- Practitioner within specific discipline, (e.g. RN or MD)

Role of Opinion Leaders

- Model practice
- Influence their peers
- Conduct informal or formal education, one-on-one discussions
- Alter the norms or expected behaviors of the group
- Affect organizational structure to support practice

Change Champions

- Practitioners within the local group setting (clinic, unit) who are passionate about promoting the EBP
- Partners with opinion leaders to foster the use of EBPs by their peers, educating and demonstrating use of the new practice in everyday care

A change champion believes in an idea; will NOT take no for an answer; is undaunted by insults and rebuff; and above all, persists.
Role of Change Champions

- Circulate information
- Encourage peers to adopt the innovation
- Arrange demonstrations
- Orient staff to the innovation
- Act as "resident expert" in the EBP, modeling the practice
- Coordinate with opinion leaders to foster adoption of the EBPs

Educational Outreach

- Educated person who meets 1:1 with practitioners in their setting to provide information about the EBPs, address questions, positive comments about aligning practice with the evidence.
- Feedback on provider performance
- Consultation on issues
- Who does this?
- Opinion leader
- Consistent person/consistent message

Outreach visits

- "What I was thinking is her site visits. … was very inspirational to the staff. … is very inspiring and it really motivated people to think outside the box, or "How can we be better at this?"
- "And after she rounded on the units, we would meet in a room and talk more about our audits that we would provide her and looking at our really risk factors and our interventions and how we were doing with those. That was useful for the team."

Implementation

- Clinicians will adopt EBPs at about the same pace
- I just have to get those resistors on board.
- Focus on the resistors first and others will follow
- "If I build it, they will come" AKA: If I tell them, they will do it!
"Because implementation of a new practice almost invariably requires changing how things are done, it affects multiple individuals from multiple specialties and their interrelationships."

(Lucian Leape, 2005)

Reality: Implementation Requires Partnerships and Collaboration

Reality: Who are/will be the Users of the Evidence-Based Practice
- Nurses
- Physicians
- Patients
- Family caregivers
- Respiratory Therapists
- Physical Therapists
- Pharmacists
- Others

Reality: Diffusion
- Diffusion is the process by which (1) an Innovation (2) is communicated through certain channels (3) over time (4) among the members of a social system

![Diffusion Graph](image)


Reality: Implementation Strategies to address users of the EBP
- Performance gap assessment – beginning of the change; indicators related to EBP topic.
- Audit and feedback – during the practice change. Discussion forums rather than passive reports.
- Trying the practice – plan as part of the implementation process.

Performance Gap Assessment
- Recommended practice compared to current practice.
- Key indicators - do not try to assess all performance measures.
- Do early in process/beginning
- Get the data to those providing care/discussion
- Positive effect on changing practitioner behavior

(Baskerville et al, 2001; Davis et al 1995; Flores et al, 1996; Brehm et al, 2004; Titler et al, in review)
Performance Gap Assessment – Pain Management

Reality: Audit and Feedback

- Effective Strategy
- Improved effectiveness in combination with other strategies
- Keep feedback actionable
- Link with organizational quality improvement structure and processes
- Data perceived by the clinician as important and valid.
- Timely, individualized, non-punitive feedback


Audit Feedback Example

% of Patients with Every 4 Hour Pain Assessment during first 48 hrs. – Postop surgery

MYTH OR REALITY
**Implementation Model**

![Diagram of Implementation Model]

**Myths**

- "One size fits all"
- Practice cultures are the same or similar in our organization.
- Changing practice is the NM's responsibility

**Characteristics of the Innovation**

**Communication Process**

**Rate & Extent of Adoption**

**Users of Innovation**

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**Communication Process**
Reality: Resources and Governance Structure

• Access to experts
• Knowledge and skills to promote EBP with staff nurses (e.g. APN)
• Access to web sites
• Know process to follow
• Primary accountability - in which group/committee/council does this work reside?

EBP Role Model and Beginner Sites

• Beginner Site
  – Drivers of change: external demands, traditional QI
  – Few in nursing with in depth knowledge of concept and processes of EBP
  – Physicians knowledgeable but few other disciplines were
  – Low receptivity to EBP

• Role Model Site
  – EBP-related staff driven issues & professional practice improvements.
  – Key leadership role played by nursing in EBP activity.
  – High receptivity

“Institutionalize” EBP as a Normal Part of Work (Stetler et al, 2009)

• Role model site: Deliberately and strategically building the capacity to implement and institutionalize EBP over a period of 5 years.
  – Why/motivation for EBP clear
  – How or methods of strategic EBP change
  – What including operationalized infrastructures for EBP

• Beginner site: EBP rarely seen as an ongoing explicit priority or vision.

Role model site: Context to create and sustain EBP

Management
• Creating and sustaining a clear vision
• Role modeling
• Developing supportive relationships
• Mentoring

Leadership
• Beyond isolated projects
• Fabric of organization
  – Building structures
  – Provision of resources
  – Monitoring progress
  – Providing feedback
  – Changing formal leaders who did not “fit” with the strategic vision.
Transformative

- We've really transformed the culture …
- I think as a system, we're so much better now
- I think this has created a teamwork that I've not seen before.
- But I personally feel we've made a much safer place for our patients, because we've made people aware for multiple different ... you know all of the different disciplines that work with the patient are now much more aware of the fall risk of the patient.

Expectations for Nurse Managers

- Only managers of high performing units (4 of 5) discussed expectations that were set for them - low performing units did not.

Implementation Studies: PIs of RWJ funded INQRI IS Studies

- Telephone interviews – taped and transcribed
- Interview guide
  - Types and perceptions about implementation strategies used
  - Successes, challenges and lessons learned
  - Steps taken for sustainability

Lessons Learned

- Context
  - “So in implementation science, it seems that context is so important. You know…Obviously this is a big lesson.”
- Complexity of implementation
  - “Implementation is a complex process that takes time. … Changing practitioner behavior is hard.”
- Communication
  - “One of the lessons learned is to use multiple communication strategies with the sites to keep them engaged.”

- HIGH PERFORMING UNITS

- Managers of high performing units discussed their active participation in translating research findings to their staff.
  - Part of staff nurse’s EBP team
  - Finding the research to support an initiative

Expectations for Staff- Differences Between High and Low Performers

- High Performers
  - Setting expectations for nursing “leaders” among staff
    - Recognized that there are leaders on unit and that it was important to set higher expectations for them.
Learning Collaborative: Resources

- Education
  - Newsletters
  - 21 Podcasts
  - How to start a journal club
  - EBP references
  - Eye on Evidence
  - Webinars – learn; journal clubs
- Research
  - Network of sites for research
  - Process for investigators to access NNPN organizations for research
  - Organization context measurement instruments
  - Culture
    - Climate
    - Interactive human relationships

Implementation Model

Characteristics of the Innovation

Communication Process

Users of Innovation

Extent of Adoption

Myths

- Evaluation is not that important
- I can inform others verbally
- I just know we are doing better
- Stories tell the impact

Reality: Need to Evaluate & Demonstrate Impact

- Outcomes – decrease VAP
- Processes – e.g. oral care, HOB elevated
- Staff knowledge and attitudes
- Cost savings; cost avoidance
- Qualitative impact: patient stories
- Part of QI program

Partnerships for EBP and Research

Partnerships

- Among clinicians and investigators
- Across disciplines
- Engagement of patients, family members and caregivers
- Discovery and Improvement of care delivery requires partnerships
A Note About Key Stakeholder Engagement in Research

Historically: Investigators Perspective

The Paradigm is Changing

Research with People, Not to People.
Focus on Questions and Outcomes Meaningful to Key Stakeholders

Types of Key Stakeholders
- People with the condition or phenomenon central to the research
- Lay caregivers
- Clinicians
- Community representative geographic area
- Advocacy group representative
- Purchasers
- Health systems
- Policy Makers

Principles of Partnerships
- Nurturing of relationships over time
- Inclusion in all phases of research
- Sustaining partnerships
  - Identifying assets and strengths
  - Develop capacity for research
  - Develop capacity for EBP
Looking Toward the Future

• Education
  – Undergraduates
  – Graduates (DNP; PhD)
• Science of translation/implementation
  – Scientist in the field
  – Training of PhD student as scientists in this field
  – Collaboration with other disciplines

Questions/Discussion

Looking Toward the Future

• Discovery/Research in patient care, health and health care, and population science
  – Scientists consider application in practice, communities and healthcare when designing interventions
• Grant acquisition
  – PCORI
  – NIH
  – AHRQ
  – CTSA pilot grant programs