Nursing-sensitive Outcomes for Community-dwelling Older Adults

Diane Ernst, RN, PhD
Associate Professor
Regis University
Denver, Colorado
The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

“No relationships to disclose”
Problem Statement

- Community Agency Serving Older Adults
  - Monthly Health Promotion Clinics Program
  - Care Management Program
Purpose of Study

- Evaluate the effectiveness of monthly health promotion clinics for older adults provided by the agency.

- Determine the most frequently provided nursing interventions using the Nursing Intervention Classification (NIC) System (Dochterman & Bulechek, 2004.)

- Determine if there is evidence of nursing-sensitive outcomes based on:
  - Nursing Outcomes Classification (NOC) outcomes for community-dwelling older adults (Head, Maas, & Johnson, 2003)
  - American Nurses Association (ANA) Community-based Nursing Quality Indicators (Sawyer, et al., 2002)
Nursing-sensitive Outcomes

• “An individual, family, or community state, behavior, or perception that is measured along a continuum in response to a nursing intervention(s).”

  (Moorhead, Johnson, & Maas, 2004, p.xix)
Research Design

• W. K. Kellogg Foundation Model of Program Evaluation (1998)
  – Context
  – Implementation
  – Outcomes
Study Setting

• Community Agency

• Fourteen (14) senior apartment high-rise buildings in large metropolitan area
Data Collection Methods

- Retrospective chart audit (N=70)
- Client interviews (N=35)
- Staff and volunteer interviews (N=12)
- Agency executive director interview (N=1)
- Staff nurses and volunteer nurses NIC Use Survey (N=5)
- Observation
- Review agency reports and documents
Data Collection Instruments

- Chart Audit Data Collection Instrument
- Client Satisfaction Interview Instrument
- Staff Perceived Benefits of Services Received Instrument
- Client Interview Demographic Instrument
- Staff and Volunteer Interview Instrument
- Agency Executive Director Interview Instrument
Chart Audit and Client Interview
Sampling Frame
Health Promotion Clinics

762 Clients
(355)

Low intensity
(1-5 visits)
(256)
20 charts
20 interview (10)

Medium intensity
(6-9 visits)
(67)
20 charts
20 interview (10)

High intensity
(10-12 visits)
(54)
20 charts
20 interview (10)
Data Collection: Staff and Volunteers

- **Interviews**
  - Pool of 39 staff and volunteers
  - 12 interviewed (31%)

- **NIC Use Survey**
  - Pool of 11 staff and volunteer nurses
  - 8 surveys returned (37%)
  - 5 surveys used
Results: Implementation Health Promotion Clinic
Client Demographic Data (N=60)

• Female (68%)
• Mean Age (76.5, SD 8.3)
• Lives alone (95%)
• Widowed (41%)
• Income $500-999/month (75%)
• Education (Client Interview source)
  – Elementary (33%)
  – Some high school (20%)
• Family support (61%)
• Racial/ethnic
  – Black (17%)
  – Hispanic (25%)
  – White (42%)
  – Asian (13%)
Most Common Health Problems (chart audit) N=60

- Vision (87%)
- Dental (73%)
- High blood pressure (70%)
- Arthritis (68%)
- Pain (59%)
- Hearing (41%)
- Experience a fall (39%)
- Respiratory (38%)
- Urinary (36%)
- Gastrointestinal (36%)
Other Areas Identified

- Cardiovascular (32%)
- Cancer (22%)
- Diabetes (21% & 3.3% insulin)
- Mental Disorders (12%) (may be under-reported or not detected)
- No dollars at end of month (30%)
- Go without medication (3%)
- One hospitalization/ED visit last year (33%)
- Fall or injury last year (25%)
- Nutrition Risk (DETERMINE Checklist):
  - Medium (28%)
  - High (26%)
- Visit to physician at least every 3 months (76%)
Clinic NICs Provided

- HEALTH EDUCATION (320)
- LEARNING FACILITATION (321)
- DOCUMENTATION (492)
- TEACHING: PRESCRIBED MEDICATIONS (337)
- VITAL SIGNS MONITORING (401)
- DECISION-MAKING SUPPORT (290)
- TEACHING DISEASE PROCESS (327)
- TEACHING: INDIVIDUAL (330)
- NUTRITION COUNSELING (48)
- BEHAVIOR MODIFICATION (254)
- LEARNING READINESS ENHANCEMENT (322)
- ACTIVE LISTENING (279)
- COUNSELING (289)
- HEALTH SCREENING (387)
- RESPIRATORY MONITORING
Outcomes: Changes in Client Behavior

- Clients do not see themselves as active managers of their disease processes.
- Few clients reported being actively involved in health promotion or wellness activities.
- Health Promotion Clinics may contribute to maintaining medical model rather than wellness model.
- Staff/volunteer perceive some clients do change behavior as a result of clinics.
- Staff/volunteers perceive clients reduce their risk factors.
Outcomes

• No significant differences in outcomes by intensity grouping (p>0.05)

• No significant differences in Time One and Time Two outcomes (p>0.05)
  – ADL
  – IADL
  – Nutrition risk factors
Mean Blood Pressure Readings Based on Intensity Grouping

<table>
<thead>
<tr>
<th>Time</th>
<th>High Intensity (n=20) (S.D.)</th>
<th>Medium Intensity (n=20) (S.D.)</th>
<th>Low Intensity (n=20) (S.D.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline BP</td>
<td>125.80/ 70.10 (16.79/9.91)</td>
<td>123.50/68.15 (16.43/11.00)</td>
<td>136.40/77.85 (15.66/10.50)</td>
</tr>
<tr>
<td>Final BP</td>
<td>126.35/67.75 (17.12/7.62)</td>
<td>125.85/69.50 (14.32/6.17)</td>
<td>133.70/76.50 (13.24/10.12)</td>
</tr>
</tbody>
</table>

• Low intensity final BP significantly higher than high intensity (F=3.60, df=2, p=0.03)
Client Perceived Benefits (N=30)

- Evaluates blood pressure
- Know if need to see physician
- Monitor health and disease status, vitals, medications
- Find problems
- Find funding
- Talking to nurses and ask them questions
Client Interview Health Promotion Clinic Satisfaction (N=30)

- Instrument reliability: Chronbach’s alpha 0.885
- Range of possible scores: 18-90
- 1=very dissatisfied (disagree) to 5=very satisfied (agree)
- Overall score mean 76.20 (8.09)
- Individual items mean 3.75 (S.D. 0.75) to 4.60 (S.D. 0.67)
- Privacy provided to you by staff mean lower: 3.87 (S.D. 1.04)
- Decisional control domain means lower: 3.75 (S.D. 0.75) to 3.96 (S.D. 0.88)
Outcomes

• Clinics assisting clients in maintaining IADL
  – Transportation
  – Assistance with shopping
  – Medication management
  – Vision support

• Clinics assisting clients in getting resources/services they need
Unintended Client/Agency Outcomes

- Social aspect to clinics
- Clients want to see same nurse
ANA Community-based Nursing Quality Indicators (7)

- **Symptom Severity**: self-care management of symptoms; pain and depression
- **Therapeutic Alliance**: consistency of communication; consistent RN or APRN provided identified
- **Utilization of Services**: total hours of direct care or number of encounters
- **Client Satisfaction**: the degree to which care received met client expectations
- **Risk Reduction**: prevention of tobacco use and cardiovascular prevention
- **Protective Factors**: existence or frequency of primary caregiver involvement
- **Level of Function**: documentation of ADL/IADL and documentation of psychosocial interaction
NOC Outcomes for Community-dwelling Older Adults

- Self-care: activities of daily living (ADL)
- Self-care: instrumental ADL (IADL)
- Knowledge: health behavior
- Treatment behavior: illness or injury
- Caregiver performance: direct care
- Caregiver physical health
Nursing-sensitive Outcomes

• ANA Community-based Nursing Quality Indicators
  – Client satisfaction
  – Level of function

• NOC Outcomes
  – Self-care: IADL
  – Treatment behavior: Illness and injury
  – Knowledge: Health behavior
Limitations of Study

- Missing Time Two yearly assessment data
- Intensity groupings
- Documentation system and agency data collection
- Some clients have attended clinics for years
- NIC Use Survey sample size
Conclusion

• Health Promotion Clinics
  – Provide screening and education
  – Monitor client health status and vital signs
  – Review client medications
  – Assist in obtaining needed services
  – Assist in negotiating health care system

• Provide more disease management than health promotion

• Evidence of nursing-sensitive outcomes found
Future Research

• Impact of using volunteer nurses
• Refinement of community-based NICs
• Refinement of community-based nursing-sensitive outcomes
• Mapping research of narrative documentation
References


References (cont’d)


