Addressing Non-Urgent Emergency Department Visits and Coordination of Care for High Utilizer Patients: Evaluation of a Pilot Program

Yasmine Aden DNP, MPH, RN, CHES®
University of Colorado, Denver College of Nursing Anschutz Medical Campus
13120 East 19th Avenue
Aurora, CO 80045
(773) 830-5361
yasmine.aden@ucdenver.edu

OVERVIEW

- A pilot program was developed to address the care needs of emergency department (ED) high utilizer patients.
- The key interventions of the program were care coordination and individualized care plans.
- Individualized care plans were created by an interprofessional project team led by a Doctor of Nursing Practice (DNP) student.

LITERATURE REVIEW

High utilizer programs have demonstrated improvements in:

- Improved health outcomes
- Increased use of appropriate healthcare services
- Reduced ED visits & inpatient admissions
- Decreased hospital charges
- Improved social outcomes such as housing stability
- Common interventions within high utilizer programs are care planning, care coordination, case management, and outreach.

Individualized care planning interventions:

- Decreased number of ED visits
- Long-term care planning on decreasing frequent visits to the ED
- Decreased exposure to ionizing radiation
- Decreased number of prescribed opioids
- Decreased inpatient hospitalizations

Care coordination interventions:

- Improved connections for patients with their primary care providers
- Demonstrated success connecting high utilizer patients with a range of community-based resources

SCIENTIFIC UNDERPINNINGS

The Interaction Model of Client Health Services (IMCHS) served as the nursing-based framework to guide the components of the high utilizer pilot program.

METHODS

Design

- Program development, implementation, & evaluation.

Evaluation Question

- "Will the implementation of a high utilizer program reduce the number of non-urgent visits and improve the continuity of care by March 1, 2018?"

Setting

- 108-bed acute care hospital with an average ED census of 26,000 visits per year.
- 18 bed ED, no trauma designation – similar to level 4.
- Located in Sparks, NV Washoe County

Sample

- Convenience sampling
- All patients who visited the ED April '16-March '17
- N=17,972
- Visits compiled and ranked from highest to lowest.

Inclusion Criteria

- ≥ 18 years of age
- ≥ 12 visits to ED in a 12-month timeframe
- Live in a zip code located in Washoe County or bordering counties
- N=27

Measures

- Outcome measures: 1) Non-urgent ED visits 2) Total ED visits 3) Continuity of care (Follow up appointments made and attended) 4) Patient experience and satisfaction with the program & 5) Provider experience and satisfaction with the program.
- Process measures: 1) Care plan development 2) Care plan implementation 3) Staff education 4) Revisions to the care plan by ED provider 5) Care plan revisions.
- Balancing measures: 1) Patients will seek emergency care at other EDs at higher rates due to program implementation & 2) Patients will leave the ED without being seen by a provider.

Analyses

- Wilcoxon signed-rank test: Non-parametric matched data.
- Compared 8 months pre (July '16 to February '17) to 8 months post (July '17 to February '18).
- Control charts
- Sample for analysis (N=24)

RESULTS CONTINUED

Continuity of Care

- Follow up appointments were scheduled for patients before they were discharged from ED for 46% of appointments. 77% of scheduled follow up appointments were attended by program participants.

Satisfaction & Experience

- Patient: No surveys were received from program participants by the end of the pilot program.
- Provider: A response rate of 41%. 57% were either satisfied or very satisfied with the program. 54% were satisfied or very satisfied with their program experience.

ED Use at Other Hospitals

- The Nevada Health Information Exchange (Nevada HealthIE) was used to track ED use at other local hospitals.
- Pre-intervention: 339 total ED visits at other hospitals (52% of patients used emergency services at other hospitals).
- Post-intervention: 237 total ED visits to other hospitals (44% of patients used emergency services at other hospitals).

LIMITATIONS

- Small sample size (n=24)
- Lack of data on patient satisfaction and experience outcomes
- No outcomes measures related to cost (ED charges, uncompensated care) or social factors (housing stability, employment).

CONCLUSIONS

- The NNNC high utilization program reduced non-urgent and total ED visits for patients with complex medical and psychosocial needs.
- The program established a process to improve continuity of care by connecting patients with community providers and scheduling primary and specialty care appointments prior to discharge from the ED.
- The combination of evidence based interventions were a primary driver of successful outcomes for this pilot program.

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REFERENCES


IMPLICATIONS

- The NNNC high utilization program reduced non-urgent and total ED visits for patients with complex medical and psychosocial needs.
- The program established a process to improve continuity of care by connecting patients with community providers and scheduling primary and specialty care appointments prior to discharge from the ED.
- The combination of evidence based interventions were a primary driver of successful outcomes for this pilot program.