

# IMPROVING HEALTH CARE FOR CLIENTS IN OPIOID TREATMENT VIA EVIDENCE-BASED PRACTICE QUALITY IMPROVEMENT

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4<sup>th</sup> Annual Community Engagement and Research Symposium

November 7, 2014

# POPULATION

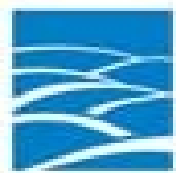
- ◉ Massachusetts:
- ◉ Opiate abuse leading drug-related cause of death
- ◉ MMT clients: Hispanic 11%, unemployed 81%, homeless 19%, mental health issues 42%

# POPULATION

- ⦿ New Bedford, MA:
- ⦿ Smoking - 27.6% vs 15%
- ⦿ Obesity
- ⦿ Fair to poor health
- ⦿ Lack dental care
- ⦿ Lack preventative screenings
- ⦿ Lack vaccinations
- ⦿ Lack primary care

# POPULATION

- ◉ Gifford Street Wellness and Recovery Center
- ◉ MMT census over 846, minority, co-occurring problems
- ◉ Medicare and Medicaid
- ◉ Methadone dispensing, counseling for mental health and substance abuse



**Seven Hills**

Behavioral Health

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# BACKGROUND FROM PROGRAM

- First review literature
- Subject matter expert
- Focus group
- Primary source data analysis from EMR

# SCOPE OF PROBLEM

- ◉ Clients lack PCP, dentists
- ◉ Have undiagnosed or untreated medical problems
- ◉ Nursing resources focused on methadone dispensing

# QUALITY IMPROVEMENT PROCESS

- ◉ Establish education practice partnership
- ◉ Literature review
- ◉ Improve and standardize assessment
- ◉ Implement strategies from literature
  - Phase 1 - Nursing Practice
  - Phase 2 - Chronic Disease Education
  - Phase 3 - Integration Primary Care

# ACADEMIC PRACTICE PARTNERSHIP

- ◉ College of Nursing
- ◉ Doctorate Nursing Program



# QUALITY IMPROVEMENT

- ◉ Phase 1 - Nursing Practice

# LITERATURE REVIEW

- ◉ 27 studies reviewed
- ◉ Johns Hopkins Nursing Evidence Based Evidence Appraisal tool
- ◉ CPG's
- ◉ Systematic reviews
- ◉ Case control studies

# PROBLEMS NOTED IN LITERATURE

- ⦿ Poorer physical and mental health
- ⦿ Increased chronic disease
- ⦿ Barriers to primary health care and social services

# SUMMARY OF EVIDENCE: HEALTH CARE PROBLEMS IN THE MMT CLIENT

- Increased chronic disease including:
  - COPD
  - Depression
  - Other psychiatric disorders
  - Infectious diseases including Hepatitis C, HIV, TB, STD's
  - Arthritis
  - Hypertension
  - Diabetes
  - Acute and chronic pain

# SUMMARY OF EVIDENCE: HEALTH CARE PROBLEMS IN THE MMT CLIENT

- Client identified barriers to care - noted in qualitative surveys
  - Stigma and discrimination
  - Lack of housing, transportation

# INTERVENTIONS SUPPORTED BY LITERATURE

- ◉ Increased linkages to health and social services
- ◉ Nursing care management
- ◉ Health promotion screening and counseling
- ◉ On site health care

# SUMMARY OF EVIDENCE: HEALTH CARE INTERVENTIONS FOR THE MMT CLIENT

- ◉ Nursing care management
- ◉ Health promotion
- ◉ On site health care

# PROJECT IMPLEMENTATION

- ◉ Develop and implement comprehensive health assessment
- ◉ Facilitate changes in nursing scope of practice to promote care management
- ◉ Develop procedures for follow up to identified health care problems



# MODELS/FRAMEWORK

Plan - Do- Study - Act (PDSA) cycle/  
model for continuous quality  
improvement

Harm Reduction Model guides  
substance abuse treatment towards  
non- judgmental, client-centered care

Pender Health Promotion Model: health  
is multidimensional and person-  
centered, and health promotion is  
directed at assisting person towards  
improved self-efficacy.

# PROJECT IMPLEMENTATION

- ◉ Stakeholder involvement
- ◉ Project implementation team
- ◉ Education
- ◉ Collaboration

# EVALUATION/ OUTCOMES

- ◉ Completion of health assessment
- ◉ Existing medical co-morbidity and disease, and potential health risks identified on assessment
- ◉ Health care problems are identified on the treatment plan
- ◉ Follow-up and referral for identified problems

# RESULTS/ FINDINGS

- ◉ Convenience sample 46 clients
- ◉ Data collection tool
- ◉ Specific health issues assessed?
- ◉ Problems were identified and addressed

# SUMMARY OF FINDINGS

- Nurses completed all sections of the health assessment in 96% of records
- In over 50% of records nurses identified all relevant health care problems
- Follow up to identified problems was not consistently documented

# DISCUSSION

- ◉ Barriers encountered in implementation prompted practice changes
- ◉ Professional development - evidence from research to nursing/ other professionals
- ◉ Systems change effected with wide stakeholder involvement

# DISCUSSION

- ◉ Comprehensive assessment can direct individual client's treatment
- ◉ Information from assessment can help shape population based interventions

# POPULATION-BASED INTERVENTIONS

- STD/HIV risk - Screening and Prevention Program Referrals
- Lack dental care / dental pain - MassHealth
- Difficulty accessing primary care - on-site PCP
- Challenges of safely prescribing methadone with cardiac risk - on-site EKG monitoring
- Hypertension - parameters for rechecks and referral
- Chronic pain - education for nursing and medical staff



# LIMITATIONS

- ◉ Project site is busy non-profit with limitations on resources
- ◉ Project objective # 3: Develop agency procedures to facilitate follow up on individual's identified health care needs - not fully met
- ◉ Convenience sample

# RECOMMENDATIONS

- ◉ Create systems to facilitate follow up to health care problems identified on assessment - treatment planning
- ◉ Increase interventions targeting tobacco use (94%)
- ◉ Designate nurse care management positions
- ◉ Fully integrate three health records
- ◉ Create single interdisciplinary treatment plan

# RECOMMENDATIONS

- ◉ Address external barriers to client health
- ◉ Collaborate with Southcoast Hospital System, Greater New Bedford Health Center
- ◉ Access dental services
- ◉ Coordinate care in community - releases of information
- ◉ Utilize Prescription Drug Monitoring Program

# RECOMMENDATIONS

- ◉ Evaluate data on chronic disease from comprehensive health assessment to determine
- ◉ Design population based interventions for key chronic diseases
- ◉ Facilitate further education-practice collaborative projects

# QUALITY IMPROVEMENT

- ◉ Phase 2 - Chronic disease education
- ◉ Tangnuer Abudula, MSN, NP
- ◉ Doctoral Nursing Student

# BACKGROUND AND SIGNIFICANCE

- Chronic Hepatitis C virus (HCV) infection is a leading cause of chronic liver disease including fibrosis, cirrhosis, liver failure, and hepatocellular carcinoma, and is a leading cause of liver transplantation in the U.S. (Moyer 2013).

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- Chronic Hepatitis C virus (HCV) infection is a leading cause of chronic liver disease including fibrosis, cirrhosis, liver failure, and hepatocellular carcinoma, and is a leading cause of liver transplantation in the U.S. (Moyer 2013).
- In Massachusetts (MA), the incidence rate of HCV remains very high.
  - Since 2002, 7,000 to 10,000 new cases of HCV infection were reported to the Massachusetts Department of Public Health (MDPH) annually (Ellwood et al., 2013).

# BACKGROUND AND SIGNIFICANCE

- In MA, between 2002-2010, the annual incidence rate increased from 79 to 136 per 100, 000 population among the age of 13-29 years old, suggesting that clinicians should initiate HCV screening and care at an early age (Ellwood et al., 2013; BID, 2012).



# BACKGROUND AND SIGNIFICANCE

- The prevalence of HCV is 53-96% in IDUs and the prevalence of HCV in methadone maintenance treatment (MMT) patients is 67-96% (Novick & Kreek, 2008).
- The number of patients with HCV has surpassed the number of patients with human immunodeficiency virus (HIV) among MMT patients (Zhang, et al., 2012 & Ellwood et al., 2013).

# BACKGROUND AND SIGNIFICANCE

- Underutilized HCV services will increase the burden of HCV related liver disease, particularly in communities like New Bedford(NB) that has a higher at-risk population compared with surrounding cities (Bureau of Substance Abuse Services (BSAS), 2012).
- In 2009, the HCV incidence infection rate in NB was 114 per 100,000 and that total underrepresents actual prevalence because of under-screening (Southcoast Health System, 2009; Ellwood et al., 2013).
- Lack of basic knowledge regarding HCV risk factors and screening recommendations, are associated with underutilization of HCV screening and management in MMTP, representing missed opportunities to promote behavior changes (Crockett & Gifford, 2004; Bruggmann, 2012; Frazer et al.; Frazer, Glacken, Coughlan, Staines, & Daly, 2010; Smith, Jorgensen, Zibbell, & Beckett, 2012; Moyer, 2013).

# BACKGROUND AND SIGNIFICANCE

- HCV infection is referred to as a “silent epidemic” (Ellwood et al., 2013).
- In the U.S., 75% of people infected with HCV do not know their HCV status (Ellwood et al., 2013).
- The misconception that ‘one would have symptoms if infected with HCV’ commonly exists among individuals (Smith, et al., 2012).
- This is complicated by the stigma that exists towards HCV-infected people in today’s society including clinicians (Harris, & Rhodes, 2013; Crockett, & Gifford, 2004; Butt, Paterson, & Mcguinness, 2007).
- Attitudes and beliefs about HCV infection and the MMTP clinician's role in HCV prevention, screening and management impacts willingness to provide HCV care (Richmond, Dunning, & Desmond, 2007; Frazer, et al., October, 2010; Manosur-Ghanaei, Joukar, Souti, & Atrkar-Roushan, 2013).
- Barriers to HCV education, screening and treatment also impacts the individual’s opportunity for HCV cure, as the proliferation of new medications has increased the success rate of HCV treatment.

# BACKGROUND AND SIGNIFICANCE

- HCV related healthcare cost will increase from 30 billion to 80 billion annually by 2020, putting a huge economic burden on Medicaid, Medicare and private insurers (Ellwood et al., 2013).
- Reducing the incidence of HCV through health promotion, prevention, screening and treatment of HCV could save \$120,000 per quality-adjusted life year (Ellwood et al., 2013).
- Improving clinician attitudes and knowledge of HCV through implementation of an evidence-based HCV education program in the MMTP has important implications for improving client outcomes and reducing healthcare expenditures.

# PROBLEM AND PURPOSE STATEMENT

- ◉ Since no vaccine against HCV exists, interventions to prevent HCV transmission are crucial, particularly in MMT programs that serve high-risk population (Ellwood et al., 2013).
- ◉ As part of the client intake, the New Bedford MMTP has recently initiated a comprehensive health assessment that includes assessment of HCV risk and referral opportunities for screening.
- ◉ It is critical to assess the MMTP clinicians' attitudes and knowledge regarding HCV to evaluate their competency in providing HCV-related education and support to clients
- ◉ Promote health, reduce risk, and support treatment adherence

# PROBLEM AND PURPOSE STATEMENT

## ○ Purpose

- Enhance clinician attitudes and knowledge in understanding HCV and providing quality evidence-based HCV education and care to MMTP clients.

## ○ Objectives

- Assess the clinicians' baseline knowledge, attitudes and behaviors regarding HCV.
- Develop an education intervention based on best evidence to improve clinicians knowledge of current practice recommendations for HCV prevention, screening, and treatment adherence.
- Determine the effectiveness of the educational intervention module in improving HCV knowledge and attitudes.

# LITERATURE REVIEW

- Studies recommend staff education that focuses on knowledge improvement and attitude change because staff attitudes and beliefs about patients with HCV are directly influenced by the clinician level of HCV knowledge levels of clinicians (Joukar, Manosur-Ghanaei, Soati, & Meskinikhoda, 2012; Richmond et al., 2007; Frazer et al., 2010).
- In order to limit nurses' concerns about HCV, ensure adequate HCV prevention and screening and promote adherence to treatment guidelines, ongoing education to improve HCV knowledge is recommended (Grebely, Oser, Taylor, & Dore, 2013; Ellwood et al., 2013; Frazer et al., 2010). These elements are critical for improving HCV-infected client outcomes (Frazer et al., 2010).

# LITERATURE REVIEW

- Clinicians' concerns and lack of knowledge regarding co-morbidities, adherence initiatives, and side effect management are barriers to HCV prevention, screening and treatment success (Bruggmann, 2012; Smith, et al., 2012).
- Nurses in particular have been shown to have deficient knowledge and skills to manage and treat HCV patients (Frazer et al., 2010).
- Advanced care practitioners, on the other hand have knowledge deficiencies related to current best practice in HCV care.
- Training the staff in key areas of screening, referring, counseling, and educating is imperative (Harris & Rhodes, 2013; Smith, et al., 2012; Substance Abuse and Mental Health Services Administration (SAMHSA), 2011; Frazer, et al., September, 2010).



# QUALITY IMPROVEMENT

- Phase 3 - Primary Care Integration

# PURPOSE

- The purpose of this study is to test the hypothesis that the utilization of acute care services:
- (Emergency room visits; Medical hospitalization; Psychiatric hospitalization)
- by methadone treatment clients will be significantly lower in the year following the initiation of integrated primary care services than in the year prior to integrated primary care services being available.

# LITERATURE REVIEW

- Integration of primary care into methadone treatment leads to better outcomes on several measures, including better engagement with a primary care provider for routine preventative care<sup>5</sup>, earlier screening for infectious diseases such as hepatitis & HIV.<sup>1, 3, 9</sup>

# LITERATURE REVIEW

The **three models** most referenced in the literature are:

- 1) **Coordinated Care**, in which a methadone program coordinates the primary care of its clients with a pre-identified collaborating primary care provider with one or more other organization;
- 2) **Co-Located Care**, in which a primary care provider and a methadone treatment program provide parallel treatment to shared clients in the same or a nearby location;
- 3) **Integrated Care** in which a single organization provides both primary care in methadone treatment services that are integrated on single care plan.

# RESEARCH HIGHLIGHTS

- Formal studies are underway to determine the efficacy of these different models of care
- According to a May 2013 report published into the public domain by the Substance Abuse and Mental Health Services Administration (SAMHSA), integrated care will yield the greatest benefits for patients, especially for individuals who have comorbid conditions.

# PROJECT PLAN

- Create primary care clinic within MMT
  - Renovate physical space
  - Obtain license
  - Hire primary care providers
  - Credential providers
  - Review, modify and create medical protocols, prescribing guidelines to blend primary care and psychiatric treatment best-practice standards
  - Create processes that enable timely and consistent forums for members of the interdisciplinary team to consult and learn from one another
  - Reconcile philosophical and attitudinal differences across disciplines to ensure consistency in approach

# PROJECT IMPLEMENTATION

- Program Licensing & Standards of Care
  - National Council on Behavioral Health
  - Massachusetts Department of Health
  - Central Michigan University, DHA Program
  - University of Massachusetts Medical School
  - SAMHSA/ HRSA
  
- Strategic Partners
  - University of Massachusetts at Dartmouth
  - Southcoast Health Systems/ St. Luke's Hospital
  - Greater New Bedford Community Health Center
  - Seven Hills Rhode Island

# VARIABLES TO EXAMINE

Acute Care Utilization Rates of MMT Program Clients  
(Comparing Pre & Post Establishment of Onsite  
Primary Care)

- ◉ Emergency Room Visits (Distinguish ER visits for emergency purposes from those for Non-Emergent Purposes);
- ◉ Nights in Detoxification Facility;
- ◉ Nights in Hospital for Physical Problems;
- ◉ Nights in Hospital for Psychiatric Problems
- ◉ Aggregate Annual Patient Level and Population Level Cost Data on Acute Care Utilization by MMT Program Clients (Pre & Post Onsite Primary Care)