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The Effect of an Interprofessional Registered Nurse-Physical Therapist Team on Reducing Prescribed Opioid Dependence in Patients with Chronic Lower Back Pain

Authors

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Abstract

Long-term prescribed opioid use for chronic pain is shown to reduce recovery potential and increase risk for dependence, which is contributing to the nationwide opioid crisis. There is a need for an innovative, multidisciplinary approach to address prescription opioid dependence. We propose implementation of a community-based interprofessional registered nurse-physical therapist team (IRNPTT) focused on reduction of opioid dependence in adult patients with chronic lower back pain.

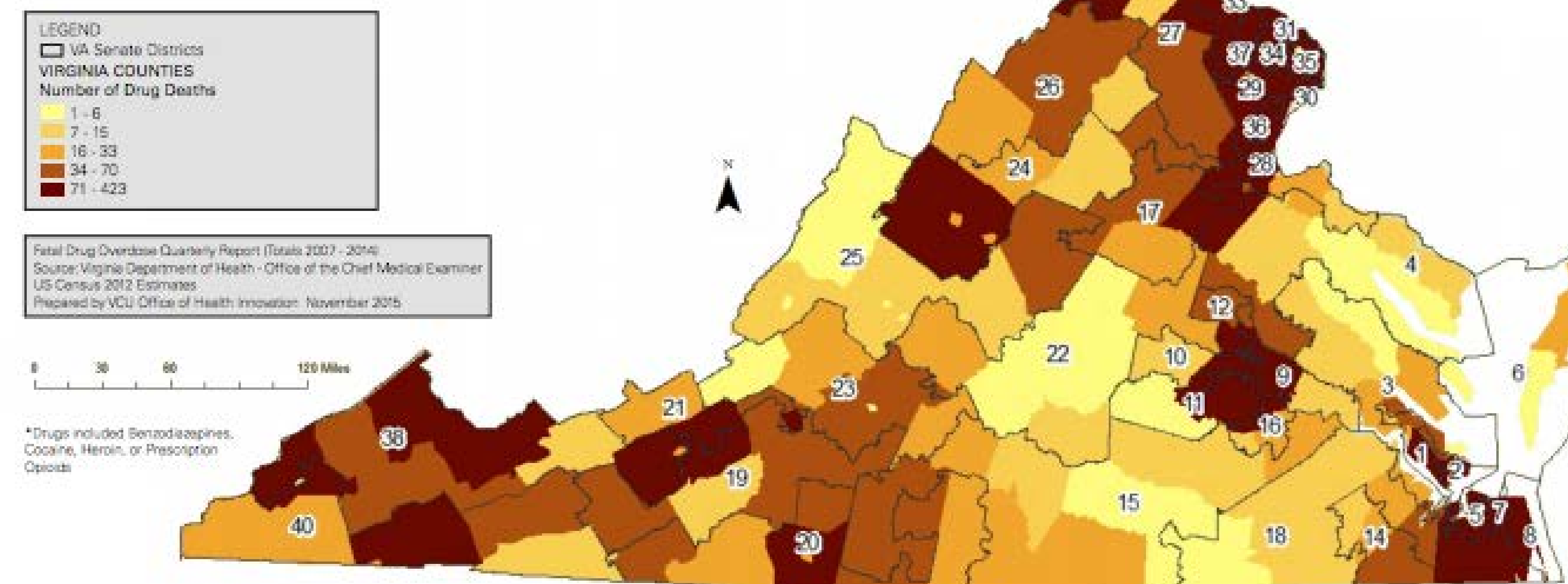


Discussion / Conclusions

- We expect to find a **reduction in pain** at rest and with exercise, an **increase in neuroscience knowledge**, and a **reduction in opioid dosage** resulting in **decrease of opioid dependence**.
- Inferential statistics for Pre- and Post Evaluation Test Questionnaire and Routine Interprofessional Intervention Check-up
 - Expect a decrease in the mean pain and dosage of opioid prescription
 - Expect an increase in the mean of neuroscience knowledge



Number of All Fatal Drug* Overdoses in Virginia Cities and Counties, CY2007-2014



Methods and Materials

Design:

- Quasi-experimental, non-randomized one-group pretest-posttest
- Evaluate effect of dose monitoring, PT and NE
- Pretest:** baseline assessment and closed and open-ended questionnaire
- Posttest:** closed and open-ended questionnaire

Sample

- Working adults 18-50 prescribed opioids for CLBP
- 12 Sentara facilities in Hampton Roads
- N=30, convenience sampling
- Recruited during 2 month period
- CLBP, prescribed opioids without PT, working full time in manual labor, permanent residence in Hampton Roads, literate, 18-50 years old
- Exclusion Criteria: neck pain or other pain, cognitive deficit due to neurological disorder, mental illness or brain injury

Procedure

- 6 month study
- Baseline assessment = pain level, dosage and frequency of opioid, other problems, prior condition, related education, and baseline PT assessment
- Baseline PT assessment = evaluate exercises and movements, degree of completion of exercises/movements, and pain level before and after completion
- Neuroscience Education
- RN and physical therapist visit participant's house twice a week and assess pain, dose and frequency of opioid, and pain after PT
- NE theme once a month
- Info evaluated weekly and then as whole after 6 months.

Instruments

- Pre- and Post Evaluation Test Questionnaire: Pain scale from 0-10, location of pain, alleviating or aggravating factors, frequency of pain, dosage and frequency of medication, and condition education
- Routine Interprofessional Intervention Check-up used at each session, asked verbally

Introduction

- 2014: **986 deaths from drug overdose**
- 80% of the deaths involved prescription opioid or heroin
- Opioid abuse can be attributed to:
 - High levels of prescription opioid supply
 - Lack of understanding
 - Limited availability of treatment
 - Chronic pain
- Chronic lower back pain, the second leading cause of disability in the US, is linked to the increase of opioid misuse, abuse and diversion
- An effective way to **combat opioid dependence is to utilize an IRNPTT** for patients suffering CLBP

Hypothesis

- It is hypothesized that an IRNPTT that conducts home visits for the quasi-experimental group using prescription opioid dose monitoring, neuroscience education, and maintained pain reduction at rest and with exercise will prompt recovery, thus reducing the likelihood of opioid dependence.

Interprofessional Roles and Responsibilities

Proposed Interprofessional Team:

- Interprofessional team of a registered nurse and physical therapist
- Registered nurse educates patient, assesses patient's pain and opioid medication, and administers pre- and post questionnaire
- Physical therapist assists & monitors patient physical therapy exercises

Positive outcomes of interprofessional treatment:

- Return to work, decreased pain levels, improved mood, lowered risk of substance abuse, and reduced health-care utilization
- Provide tools needed to **enhance functioning** and **cope with pain**

A Counseling Perspective:

- Switch the client's focus from problems, hopelessness, and powerlessness to goals, control, and choice
- Two major goals:
 - Changing the client's pain behaviors
 - Reducing maladaptive coping strategies
- Maximize the client's psychological and psychosocial functioning
 - Focusing and mindfulness, CBT, exposure, monitored self-help strategies, and brief educational sessions for clients experiencing chronic pain

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