

East Tennessee State University Digital Commons @ East Tennessee State University

Appalachian Student Research Forum

2018 ASRF Schedule

Apr 4th, 9:40 AM - 9:55 AM

Behavioral Correlates for Quitting Opioids among Opioid-Dependent Pregnant and Non-Pregnant Women of Childbearing Age in Rural Appalachia

Sindura Kompella

East Tennessee State University

Sylvester Olubolu Orimaye

East Tennessee State University

Nigel Dsouza

East Tennessee State University

Karl Goodkin

East Tennessee State University

Steven Kendell

East Tennessee State University

See next page for additional authors

Follow this and additional works at: <https://dc.etsu.edu/asrf>

 Part of the [Behavior and Behavior Mechanisms Commons](#)

Kompella, Sindura; Orimaye, Sylvester Olubolu; Dsouza, Nigel; Goodkin, Karl; Kendell, Steven; Wallace, Susan; and Willson, Tracy, "Behavioral Correlates for Quitting Opioids among Opioid-Dependent Pregnant and Non-Pregnant Women of Childbearing Age in Rural Appalachia" (2018). *Appalachian Student Research Forum*. 31.
<https://dc.etsu.edu/asrf/2018/schedule/31>

This Oral presentation is brought to you for free and open access by the Events at Digital Commons @ East Tennessee State University. It has been accepted for inclusion in Appalachian Student Research Forum by an authorized administrator of Digital Commons @ East Tennessee State University. For more information, please contact digilib@etsu.edu.

Author Names

Sindura Kompella, Sylvester Olubolu Orimaye, Nigel Dsouza, Karl Goodkin, Steven Kendell, Susan Wallace, and Tracy Willson

Behavioral Correlates for Quitting Opioids among Opioid-Dependent Pregnant and Non-Pregnant Women of Childbearing Age in Rural Appalachia

Appalachian Forum

April 4, 2018

Outline

- Background
- NAS Incidence rates
- Our Study
 - Methods
 - Results
 - Discussion
- Future implications

Neonatal Abstinence Syndrome

- United States is the largest consumer of prescription opiates in the world.
- Tennessee has the highest incidence of NAS cases.
- Maternal Use of opiates during pregnancy results in NAS, babies can have a variety of symptoms which are life threatening.
- Opiates cross the placental barrier during pregnancy and drug dependence develops in babies before birth.
- Heroin, Codeine, Methadone, oxycontin (painkillers, prescribed medications for addictive behavior or abused due to illicit drug use).

Neonatal Abstinence Syndrome

High-pitched crying

Seizures

Temperature Instability

Symptoms taken from the CDC



Sleep problems

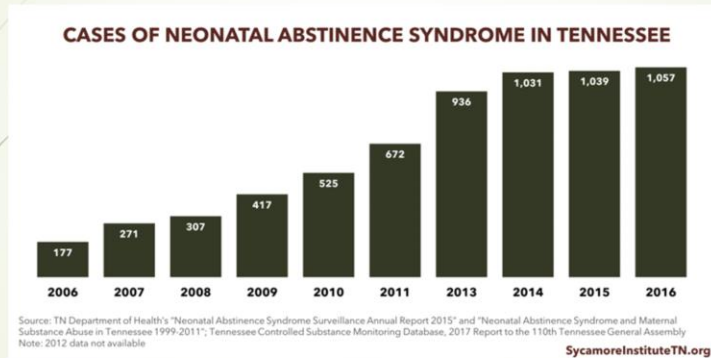
Sneezing

Feeding Difficulties

Tremors

5

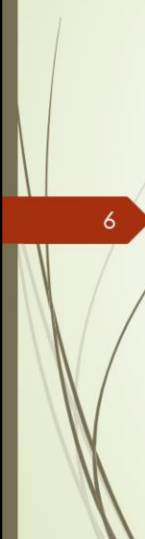
NAS rate/trend from 2006-2016 in Tennessee



There is a six-fold increase in NAS cases since 2006

Medication- assisted treatment for opiate use.

- 52.5% of children diagnosed with NAS in Tennessee have had exposure to one prescription drug.
- 27.2% were exposed to a combination of prescribed medications and illicit substances.



In this study: We examined the behavioral correlates that determine the wish to quit opioids or not to quit opioids among opioid-dependent pregnant and non-pregnant women in rural Appalachia.

Methods

7

- 10 females of childbearing age were recruited to join in the study from the rural Appalachia region (pregnant and non-pregnant).

- Variables used:
 - Age
 - Hamilton Depression Rating Scale (HAM-D)
 - Visual Analogue Scale – Pain (VAS-P)
 - Modified Opiate Craving Scale (MOCS)
 - Visual Analog Commitment to Quit Opiates
 - McGill Pain Index (MPI)

All were receiving physician-managed Medication Assisted Treatment (MAT) therapy for the treatment of severe opioid use disorder, or are currently being prescribed an opioid medication.

- Drug prescriptions
- tobacco and alcohol use, illicit substance use
- Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES)
- Adverse Childhood Experience (ACE) questionnaire

-The HAM-D, MOCS, MPI, and SOCRATES scores were log-transformed to approximate a normal distribution to ensure equal distribution between each of the variables.

-Descriptive statistics and the Spearman's rank correlation (with a 95% Confidence Interval) were conducted to examine significant behavioral correlates for quitting opioids.

Results

- ▶ Women with higher HAM-D and MOCS scores are not likely to express willingness to quit opioids. There is a statistically significant strong positive correlation of 0.679.
- ▶ Women with high depression and pain scores are not likely to quit opioids.
- ▶ Women who recognize the need to quit opioids or are “taking steps” to quit are more likely to quit opioids.

Discussion

- ▶ Opioid abuse and depression correlation is bi-directional. One can be a risk factor for another and vice versa.
- ▶ Addiction can lead to the feelings of hopelessness, despair and guilt often associated with depression
- ▶ 48% of people dependent on the drug will also experience depression.

Nunes, E. V., Sullivan, M. A., & Levin, F. R. (2004). Treatment of depression in patients with opiate dependence. *Biological Psychiatry*, 56(10), 793-802

Depression bears a complex relationship to opiate dependence and may represent an independent disorder or may be engendered by psychosocial stress or toxic and withdrawal effects of drugs.

Future Implications

- ▶ Use larger sample size
- ▶ Explore correlation of Depression, Pain scores and Opiate abuse in different regions of US.
- ▶ Consider Non-opioid medications

Thank you

Questions?