

Nursing leadership in addressing mental health inequalities: managing tobacco addiction in psychiatric inpatients

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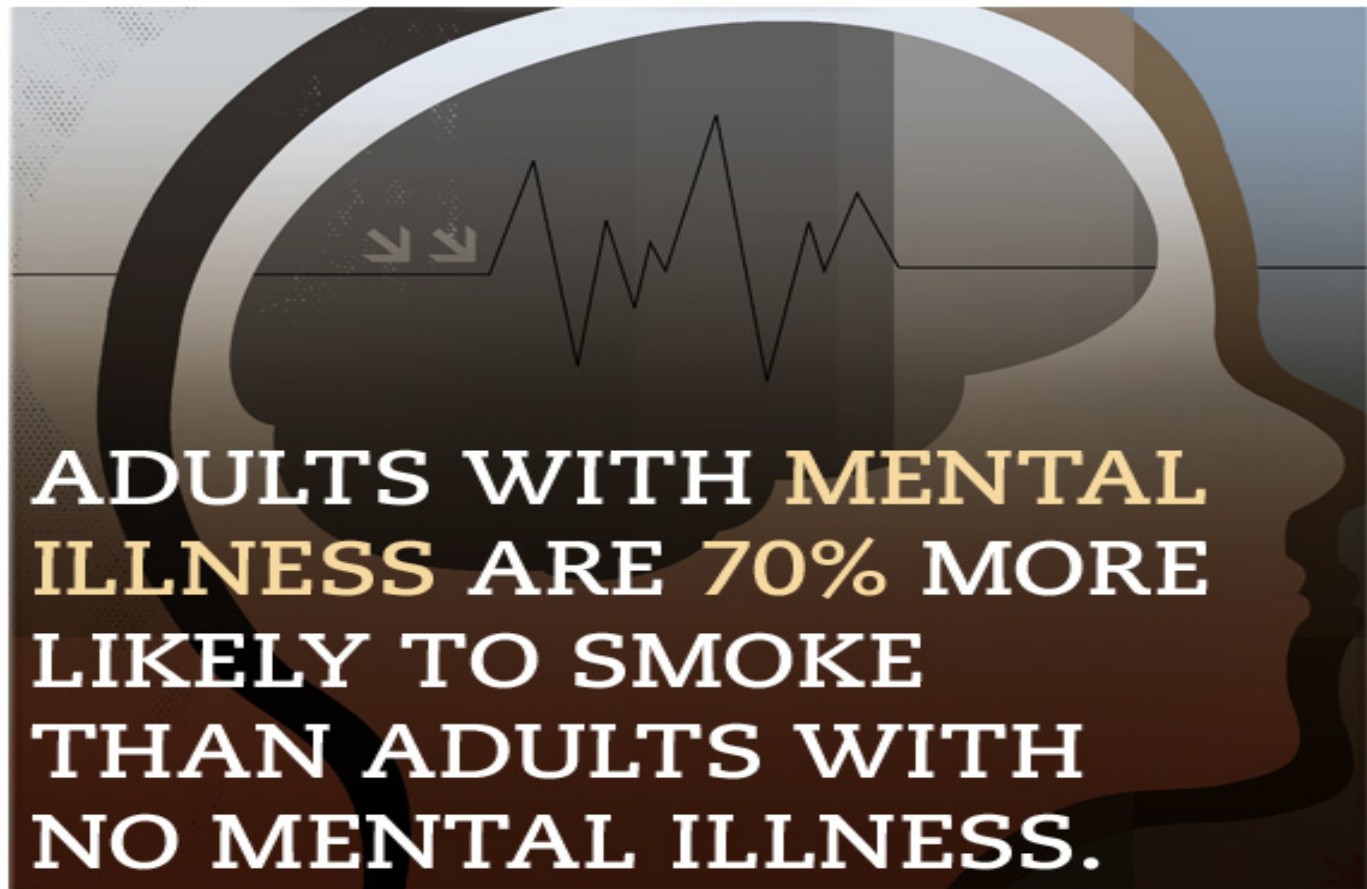
Eastern State Hospital
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Objectives

1. Describe the significance of tobacco use and mental illness (MI)
2. Explain evidence-based guidelines for addressing tobacco use
3. Describe the Tobacco Treatment Services (TTS) at Eastern State Hospital (ESH)
4. Discuss nicotine withdrawal management outcomes of the TTS



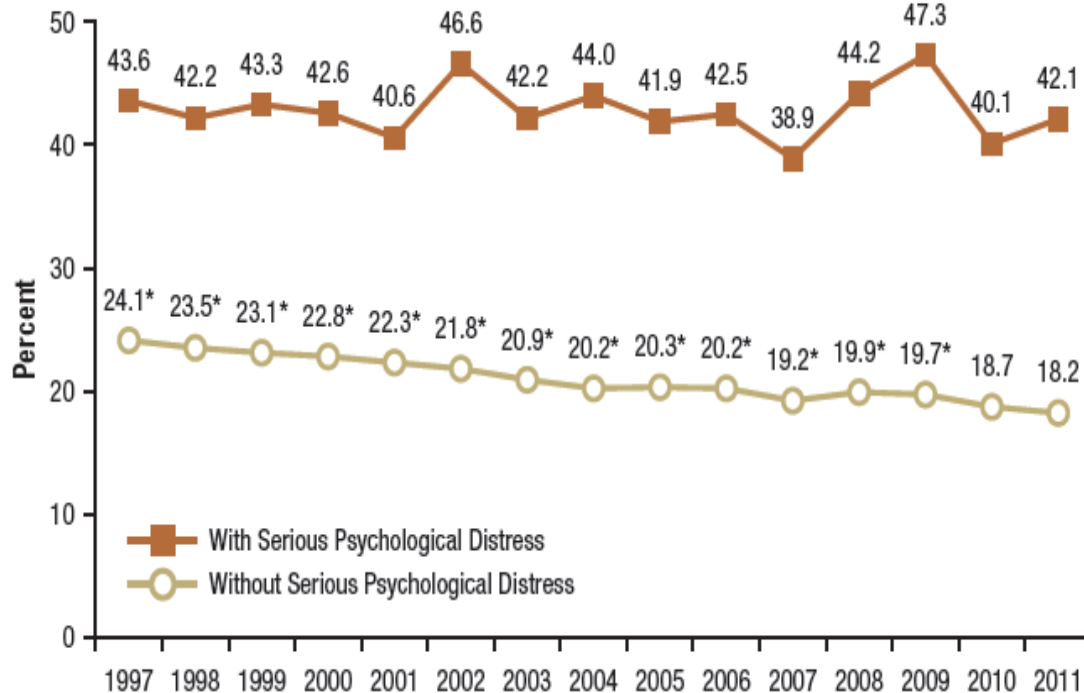
Significance



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Smoking and Serious Psychological Distress

Current Smoking among Adults Aged 18 or Older, by Past Month Serious Psychological Distress Status: NHIS, 1997 to 2011



* Difference between estimate and estimate for 2011 is statistically significant at the .05 level.

“This suggests that tobacco control policies and cessation interventions targeting the general population have not worked as effectively for persons with mental illness.”

(Cook et al., 2014 pg. 181)

Data from the National Health Interview Survey. Current smoking is defined as those who had smoked 100 cigarettes in their lifetime and smoked daily or some days at time of the interview. This illustration was obtained with permission from the SAMHSA CBHSQ Report, July 18 2013:http://www.samhsa.gov/data/sites/default/files/spot120-smokingspd_/spot120-smokingSPD.pdf

Cook, B.; Wayne, G.; Kafali, E.; Liu, Z.; Shu, C.; Flores, M. Trends in smoking among adults with mental illness and association between mental health treatment and smoking cessation. *JAMA* **2014**, *311*, 172-182.

Adverse effects of smoking among persons with mental illness

Smokers with Mental illness:

- Die 10-25 years earlier
- Have more depression and anxiety
- Have more substance use problems
- Have more cardiovascular and cardiopulmonary problems
- Are more likely to commit suicide
- Have sexual problems

Smoking keeps consumers from achieving recovery:

- Reduces financial stability
- Decreases opportunities for jobs
- Decreases ability to secure housing

CDC Best Practice Goals

- ☐ Preventing tobacco use initiation
- ☐ Promoting cessation of tobacco use
- ☐ Eliminating exposure to secondhand tobacco smoke
- ☐ Identifying and eliminating tobacco related disparities among population groups

1. Preventing Initiation

Strategies to facilitate the prevention of initiation among non-tobacco users while hospitalized include:

1. Assessment of susceptibility to smoking
2. Assessment of 'social' & 'perceived' tobacco smoke exposure
3. Reinforce education on the health risks associated with tobacco use, particularly links with mental illness

Preventing Initiation (contd)

Smoking Susceptibility Questions (check one response per question):

	1 Definitely yes	2 Probably yes	3 Probably not	4 Definitely not
1. Do you think that you will smoke a cigarette/use tobacco products soon?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Do you think you will smoke a cigarette/use tobacco products in the next year?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Do you think that in the future you might experiment with cigarettes?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. If one of your best friends were to offer you a cigarette/tobacco product, would you smoke/use it?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Key: A response other than 'definitely not' to any item will classify a respondent as "susceptible." To be 'non-susceptible', a respondent must indicate 'definitely not' to all 4 items.

Source:

Pierce JP, Farkas AJ, Evans N, Gilpin EA. An improved surveillance measure for adolescent smoking. *Tobacco Control* 1995; 4:S47-S56.

Pierce JP, Choi WS, Gilpin EA, Farkas AJ, Merritt RK. Validation of susceptibility as a predictor of which adolescents take up smoking in the U.S. *Health Psychology* 1996;15:355-361.

Social tobacco exposure questions:

Do any of the following people in your life currently smoke cigarettes/use tobacco products?

	Yes	No	Does not apply
Spouse/ Partner/ Boyfriend or girlfriend	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mother or Father/ Step-parent(s)/grandparents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brother (s)/ Sister (s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Best/Close friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Key: A summary score is calculated with 'yes' as '1' and 'no/does not apply' as '0'. Higher summary scores indicate higher 'social exposure'.

Source: Okoli, C. (2016). A comparison of survey measures and biomarkers of secondhand tobacco smoke exposure among nonsmokers. *Public Health Nursing*, 33(1), 82-89.

Perceived tobacco exposure question:

On a scale of 0-10 with 0 being "not at all" and 10 being "all the time", how often would you say you are exposed to secondhand tobacco smoke on average? (Please circle one)

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Key: Higher ratings indicated greater 'perceived' tobacco smoke exposure

Source: Okoli, C. (2016). A comparison of survey measures and biomarkers of secondhand tobacco smoke exposure among nonsmokers. *Public Health Nursing*, 33(1), 82-89.

2. Promoting Cessation



Strategies that can facilitate the promotion of cessation among hospitalized tobacco users include:

1. Using brief interventions for tobacco treatment (i.e., 5 A's model):
 - **Ask, Advise, Assess, Assist, Arrange/Refer**
2. Assessing for and managing nicotine withdrawal by:
 - Assessing nicotine withdrawal
 - Providing nicotine replacement therapy as required

Promoting Cessation (contd)

MINNESOTA NICOTINE WITHDRAWAL SCALE

Please rate symptoms based on the last 24hrs

	none	slight	mild	moderate	severe
Desire or craving to smoke	0	1	2	3	4
Depressed mood	0	1	2	3	4
Insomnia, waking at night	0	1	2	3	4
Anger, irritability, frustration	0	1	2	3	4
Anxiety	0	1	2	3	4
Difficulty concentrating	0	1	2	3	4
Restlessness	0	1	2	3	4
Increased appetite/weight gain	0	1	2	3	4

Key: Higher summary scores indicate greater nicotine withdrawal

Source: Hughes JR, Hatsukami D. Signs and symptoms of tobacco withdrawal. Arch Gen Psychiatry. 1986 Mar;43(3):289-94
Hughes J, Hatsukami DK. Errors in using tobacco withdrawal scale. Tobacco Control. 1998;7(1):92-93

Guidelines for Inpatient Tobacco Cessation Therapy

Patient admitted and is a current smoker or user of smokeless tobacco

Assess for symptoms of nicotine withdrawal:

Depressed mood
Anxiety
Increase appetite
Insomnia
Difficulty concentrating
Decreased heart rate
Irritability
Restlessness
Craving for tobacco

Has signs of withdrawal (+)

No signs of withdrawal (-)

AND

Provide patient with information about tobacco cessation, document this positive intervention!

Assess the number of cigarettes smoked per day and/or the number of cans of smokeless tobacco used. Dose recommendations....

Cigarettes	Nicotine Patch Dose
>40 Cigarettes per day	42 mg total (21 mg + 21 mg)
30-40 Cigarettes per day	35 mg total (14 mg+ 21 mg)
20-30 Cigarettes per day	21 mg patch
<20 Cigarettes per day	14 mg patch
Smokeless Tobacco	
3 cans/pouches per week	42 mg total (21 mg + 21 mg)
2 cans/pouches per week	35 mg total (14 mg+ 21 mg)
1 can/pouch per week	21 mg patch
< 1 can/pouch per week	14 mg patch

Reassess for symptoms of withdrawal

Continued (+)

None (-)

Continue for 4 weeks then slowly decrease by 7mg every 2 weeks!

Consider increasing patch dose and/or adding nicotine gum 2mg q1h prn for cravings...

Table approved by the smoking cessation committee 7/30/07, P&T 8/16/07

Contraindications/Warnings

Allergy to tape or adhesive. Relative contraindications include tachycardia and active cardiac ischemia. If choosing not to administer NRT or if the patient refuses, please provide education.

Discharge considerations

Consider Rx for nicotine patch taper +/- bupropion(Zyban®/Wellbutrin®) OR varenicline (Chantix®).

ALWAYS Provide patient with information about tobacco cessation, document this positive intervention

3. Eliminating SHS Exposure

Strategies that can facilitate the elimination of SHS exposure among hospitalized tobacco users include:

1. Assess for environmental SHS exposure in living, work, and social environment
2. Advocate and enforce a comprehensive smoke-free policy within the hospital
3. Educate patients on voluntary environmental SHS policies such as in the car and the home

Eliminating SHS Exposure (contd)

Environmental Secondhand Smoke Exposure Questions

Do other smokers live in the same house / apartment as you?

☐ yes → How many? ☐ no

Excluding yourself, how many people smoke inside your home every day or almost every day?

☐ none ☐ 1 ☐ 2 ☐ 3 or more

During the past 7 days, did someone smoke when you were ...

		Yes	No
a.	in a restaurant or cafe	<input type="radio"/>	<input type="radio"/>
b.	in a car	<input type="radio"/>	<input type="radio"/>
c.	in your house	<input type="radio"/>	<input type="radio"/>
d.	in someone else's house	<input type="radio"/>	<input type="radio"/>
e.	at work or school	<input type="radio"/>	<input type="radio"/>
f.	Other: Please specify	<input type="radio"/>	<input type="radio"/>

4. Identifying/Eliminating Disparities

Strategies that can facilitate the identification/elimination of disparities among hospitalized tobacco users include:

1. Promoting tobacco control advocacy in tobacco education groups
2. Providing information on tobacco industry marketing strategies
3. Providing tailored prevention/cessation information based on patient disparity risk profile

Business or Exploitation? | Mental Health | :30 Report



<https://www.youtube.com/watch?v=PiQVg1cFPIE>

ESH Tobacco Treatment Services



Tobacco Treatment Services Flow Chart

Patient identified as a tobacco user at admission



Admitting Physician/APP orders appropriate NRT



Tobacco Treatment Clinic provides follow-up assessment on unit

1. Assesses nicotine withdrawal, motivation to quit, and stage of change
2. Make recommendations to care team for tobacco treatment plan
 - a) Adjustment of tobacco cessation medication
 - b) Attend tobacco dependence education or cessation group (based on stage of change)



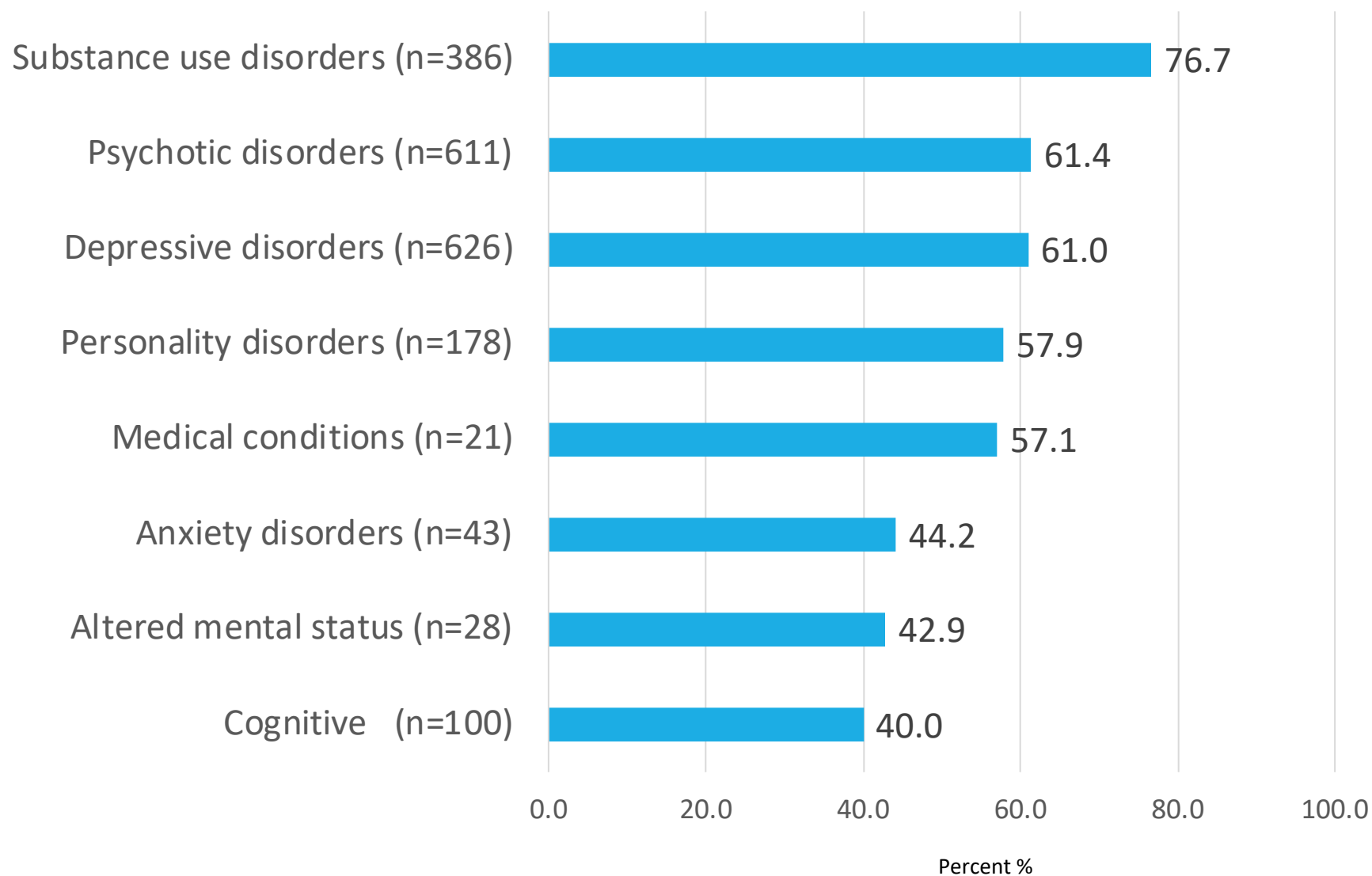
Tobacco Treatment Clinic provides individual or group classes

1. 30 min tobacco education (For Pre-contemplation and Contemplation stages)
2. 30 min tobacco cessation groups (For Preparation, Action, and Maintenance)
3. Provide referrals to tobacco treatment programs (e.g., KY quitline)



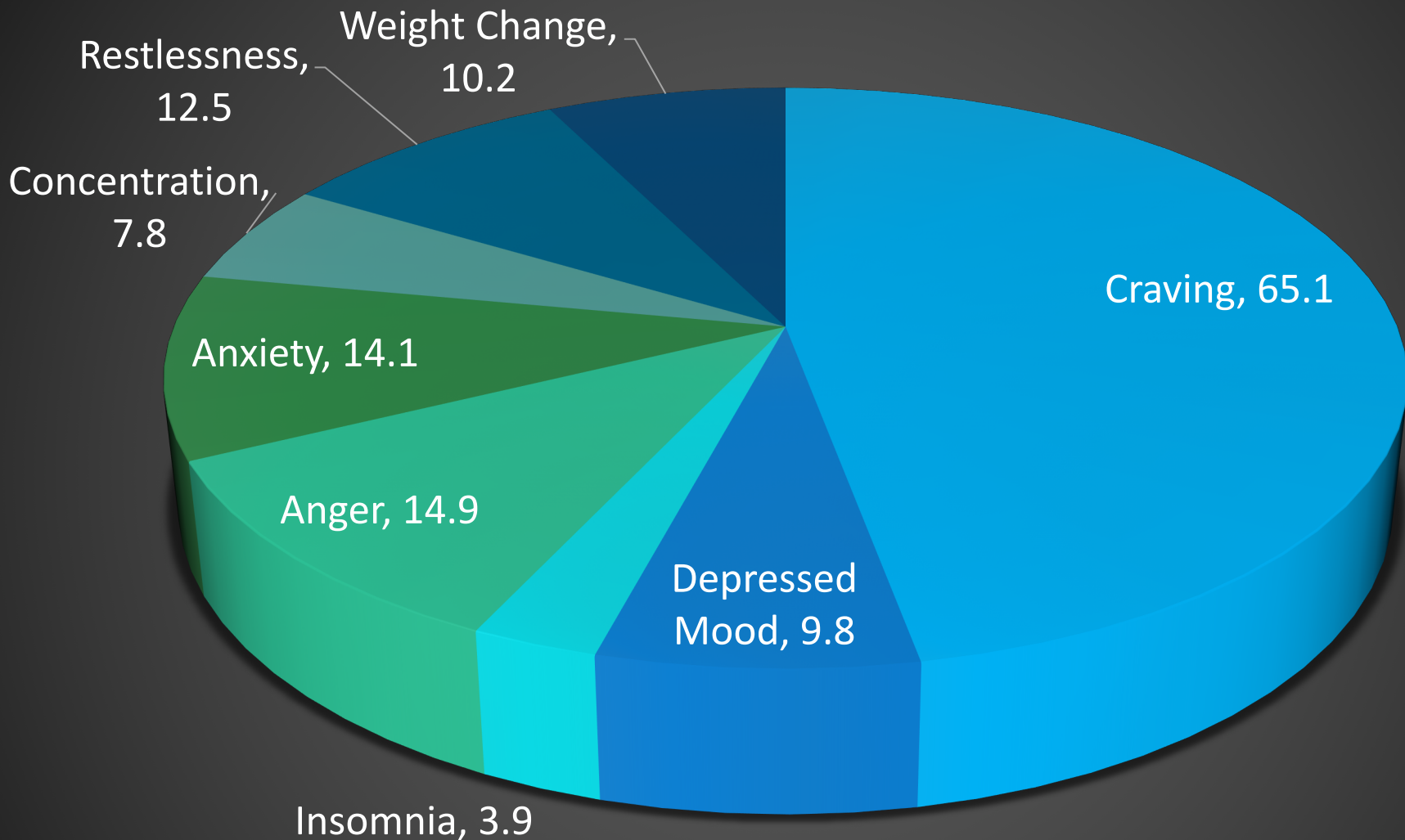
Attending Physician/APP orders medication at discharge as appropriate

Tobacco Use by Diagnosis, Jan– Dec 2016 (N=2037)



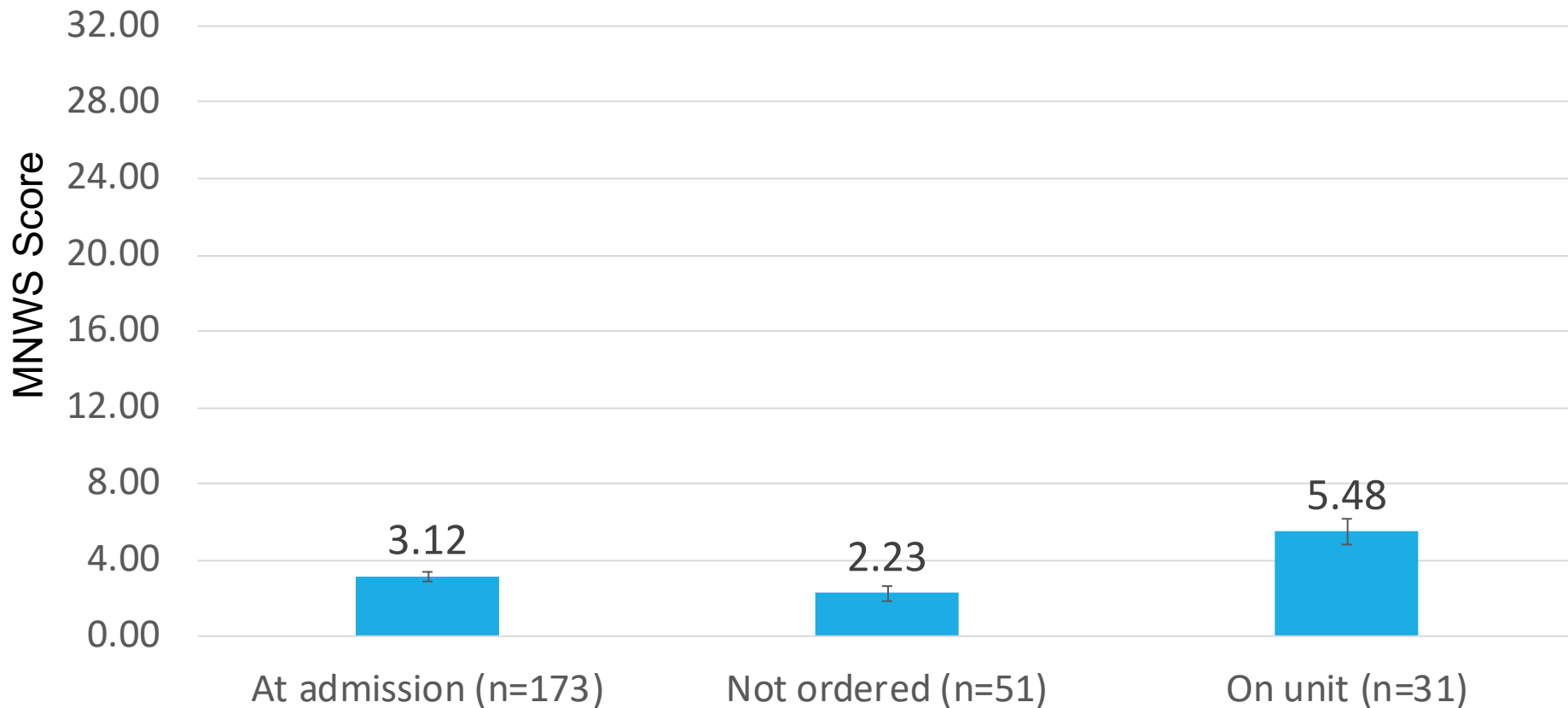
*Diagnosis is based on discharge diagnosis from ICD-10 classification (repeat admissions not included in analysis)

Frequency of Nicotine Withdrawal Symptoms* (n = 255)



*Based on the Minnesota Nicotine Withdrawal Scale, an 8-Item questionnaire that assesses severity of nicotine withdrawal. Hughes JR, Hatsukami D. Signs and symptoms of tobacco withdrawal. Archives of General Psychiatry. 1986;43:289–294

Intensity of Nicotine Withdrawal by receiving NRT at admission (n = 255, Mean=3.2, SD=4.2)



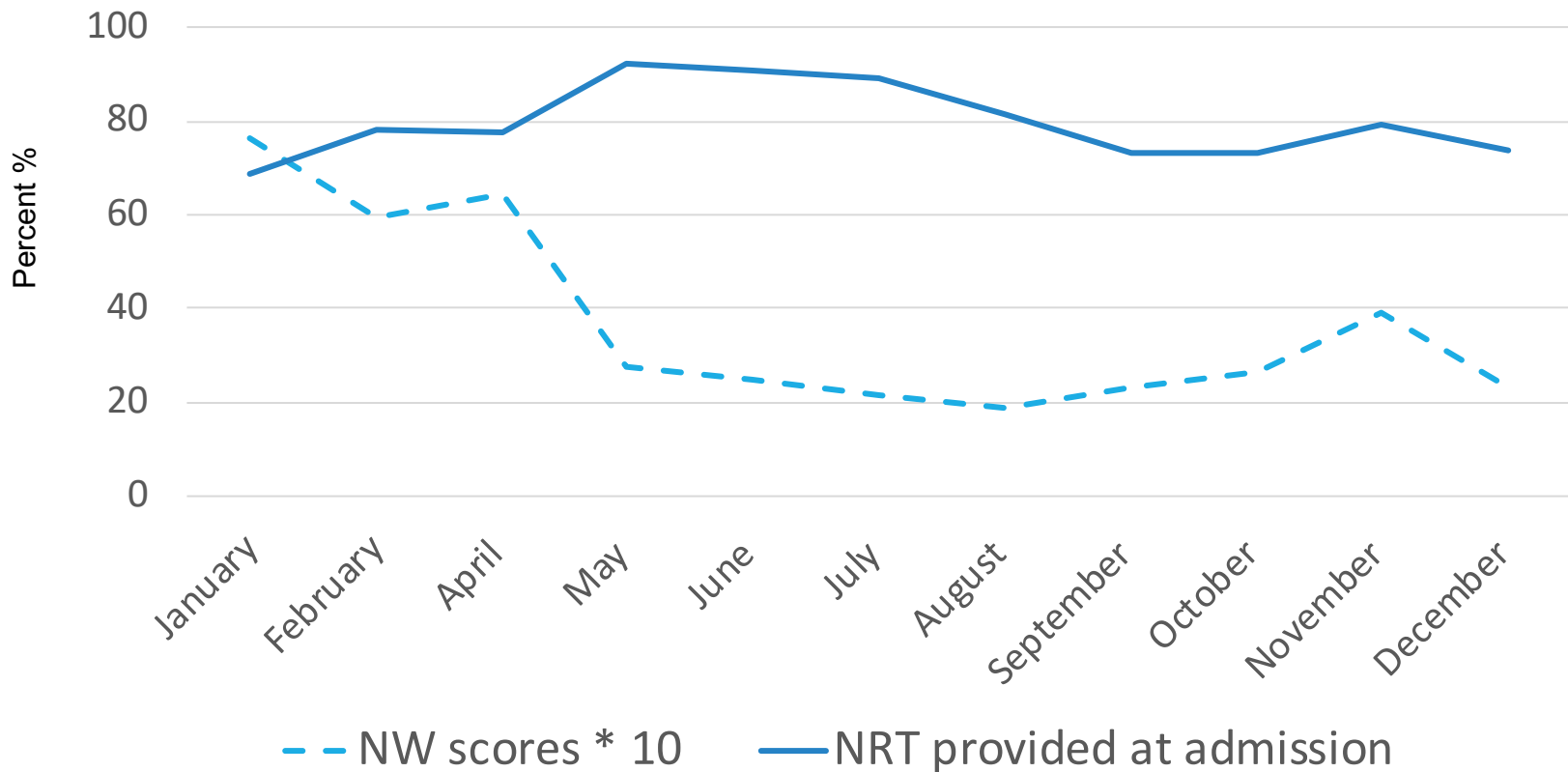
*Significant group differences using Kruskal-Wallis $X^2=12.7$; $p=.002$

Multivariate Correlates of Nicotine Withdrawal

	Beta	P-value
Confidence to quit	-.14*	.039
Time of Receiving NRT		
At admission (referent)	1.00	--
Not provided	.17	.516
On Unit	.15*	.017

Adjusted $R^2=0.12$, $F=4.86$ [9, 245], $p<.0001$.

Changes in nicotine withdrawal intensity with NRT provided at admission by months



* For this graph, the nicotine withdrawal scores were multiplied by 10 to create a rate of intensity scores.

Conclusions

- Significant tobacco use among people with MI and at ESH
- High reporting of nicotine withdrawal symptoms among inpatients (most prevalent is craving)
- Those for whom the nicotine patch is delayed (on unit) have the highest reporting of and intensity of withdrawal
- Increasing patch administration is associated with decreased nicotine withdrawal intensity scores over time

Implications

- Need for best practices in documenting tobacco use and offering all tobacco users nicotine replacement therapy during tobacco-free hospitalizations
- Nursing-led tobacco treatment results in better management of withdrawal

QUESTIONS?

