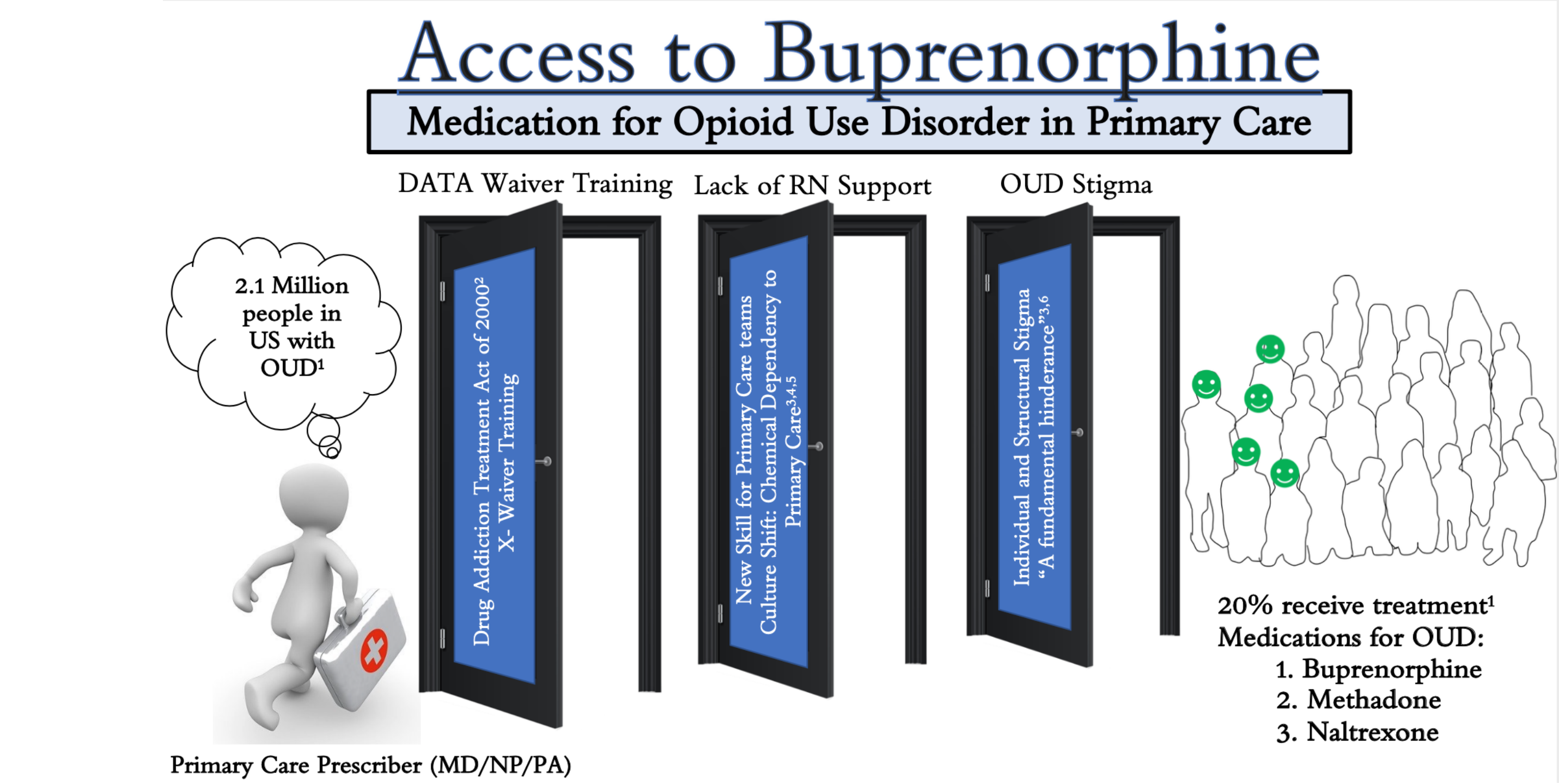


Addressing Underutilization of Buprenorphine and Opioid Use Disorder Stigma in Primary Care: A Pilot Intervention for Registered Nurses

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Background



Recent Primary Care Buprenorphine Education Interventions^{7,8,9}:

- No inclusion of specific anti-stigma curricula
- Few actively encouraged the participation of registered nurses

Purpose & Aims

Purpose: Address prescriber-reported barriers and increase buprenorphine prescribing at an urban primary care community health organization.

Aim 1: Participants will report reduced stigmatizing attitudes about persons with OUD immediately after the intervention.

Aim 2: Participants will report increased participation in buprenorphine management two-months after the intervention.

Aim 3: The organization will report an increased rate of unique patients receiving buprenorphine prescriptions two months after the intervention

Methods

Design: Pretest Posttest Quality Improvement Project

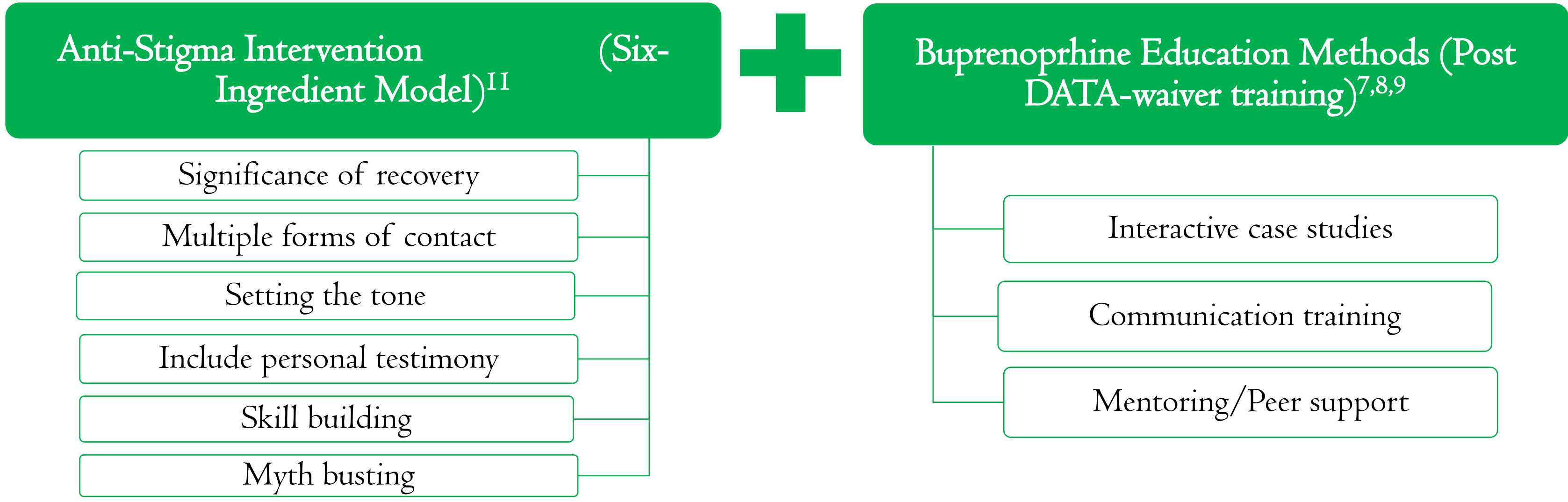
Setting: Urban Primary Care Community Health Organization

Sample: Primary Care Registered Nurses (convenience sample)

Intervention: 2-hour virtual buprenorphine-specific anti-stigma training

Project Aims	Measure	Data Collection	Data Analysis (SPSS v25)
1. Decrease stigmatizing attitudes	Modified OMS-HC ¹⁰ (substituted <i>opioid use disorder</i> for the term <i>mental illness</i>)	Qualtrics survey immediately post intervention	Descriptive statistics Wilcoxon matched pairs signed rank test
2. Increase participation in buprenorphine mgmt.	Novel Buprenorphine participation scale	Qualtrics survey two months post intervention	Descriptive statistics Wilcoxon matched pairs signed rank test
3. Increase rate of unique patients receiving buprenorphine Rx	# of buprenorphine Rx/# billable encounters over two-month timeframe	Data abstraction	Descriptive statistics Chi-squared test

Evidenced-Based Intervention



Results

Sample Size: 12 (paired baseline, initial follow-up, & two-month follow-up)

Sample Characteristics: Majority were female (n=11, 97%), under 35 years old (n=7, 57%), with a bachelor’s degree in nursing (n=9, 75%), less than 5 years of experience in the RN role (n=6, 50%) and had attended a prior buprenorphine training (n=10, 83%).

Aim 1: Decrease stigmatizing attitudes

(Modified OMS-HC showed acceptable reliability in the project, $\alpha=0.92$)

	N	Mean	Std. Deviation	Median
Modified OMS-HC Pretest	12	31.25	7.72	29.00
Modified OMS-HC Posttest	12	29.75	8.99	26.00

- 4% decrease in stigmatizing attitude towards persons with OUD
- No statistically significant change ($Z= -1.77$, $p=0.15$)
- Cohen’s d effect size: intermediate effect ($d = 0.62$).

Aim 2: Increase buprenorphine participation

(Novel buprenorphine participation scale showed acceptable reliability, $\alpha=0.88$).

	N	Mean	Std. Deviation	Median
Participation in Buprenorphine Pre	12	10.00	4.13	10.00
Participation in Buprenorphine Post	12	8.25	3.86	6.50

- No statistically significant change ($Z= -1.74$, $p=0.08$)

Aim 3: Increase buprenorphine prescription rate

	Pre-intervention	Post-intervention
# of patients receiving Rx during two-month timeframe	47	63
# of billable encounters during two-month timeframe	18,490	18,430

- 36% increase in patients receiving buprenorphine prescription
- No statistically significant association found ($\chi^2 = 2.10$, $p=0.15$)

Discussion & Conclusions

Feasibility

- Brief low-cost buprenorphine-specific anti-stigma intervention
- Low-resource community health setting

Statistical Relevance of Stigma Reduction

- Results from larger studies addressing other mental health diagnosis^{11,12,13}
 - Design: Pretest-posttest design
 - Implementation: Six-ingredient Anti-stigma model
 - Measurement: Change in OMS-HC
 - Results: Statistically significant OMS-HC reduction between 2.4% and 4.4%¹¹
- Project findings (4% reduction) within this range - Supports hypothesis that the intervention has the potential to reduce healthcare providers stigmatizing attitudes.

Limitations

- Sample size small & convenience sampling
- Timeframe too short to detect statistically significant behavior change
- Measurement tools: good internal consistency but no psychometric validity study
- Covid-19: Virtual intervention instead of in person – impact on peer collaboration
 - Change in healthcare delivery and access

Recommendations

- **Repeat intervention** - Sample: Other primary care team members
 - Setting: Similar low-resource community health center
- **Larger more rigorous studies**
- **Measure clinical impact** of reduction in healthcare providers’ OUD stigma
 - Qualitative patient testimonies
 - Quantitative patient retention rates and change in opioid-related adverse events

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