INTRODUCTION

The application of harm reduction (HR) principles and strategies to treat patients with substance use disorder (SUD) significantly improves health outcomes, yet medical school and residency curricula provide little foundational HR principles and strategies. Studies reveal that few Emergency Medicine (EM) physicians incorporate routine screening, intervention, and referrals into their practice while many feel unprepared and uncomfortable caring for these patients.

We developed a multifaceted training program (Figure 1) about SUD HR principles for EM physicians and assessed its impact on physician knowledge and confidence.

MATERIALS & METHODS

The training program consisted of:
1. Online module in partnership with Overdose Lifeline
   a) Focused on SUD and HR
2. In-person simulation based module with community based representatives and ECU simulation faculty and staff.
   a) Focused on interview skills, HR philosophy, HR skills, and HR ethics

Data was collected from EM and EM/R residents’ pre- and post-training surveys assessing screening, management, attitudes and confidence in working with patient who use substances using Likert sliding scale responses and open-ended free text and a knowledge assessment were conducted to evaluate the training. Likert sliding scale responses were evaluated using paired samples t-Test analysis.

RESULTS

Thirty-five residents (78% of total residents) completed the online portion and 34 (76%) participated in the in-person training. 17 completed both pre- & post-training knowledge assessment and 14 completed both pre- & post-training survey.

Scores on objective knowledge assessment increased (11.2 to 13.1, p<0.004) after training. Survey responses revealed increased confidence in ability to
1. Screen patients for SUD (54.7 vs 71.3, p < 0.02),
2. Assess patients’ readiness to change risky substance use (43.2 vs 73.6, p < 0.001)
3. Assess patients’ interest in readiness for treatment (42.5 vs 72.8, p < 0.0001)

Residents reported their understanding of the neurobiological basis of addiction increased from 47.5 to 74.2 on the Likert sliding scale (p<0.0003).

![Figure 1: training program and assessment timeline](image1)

![Figure 2: Knowledge Assessment score before and after training (P<0.004)](image2)

![Figure 3: Survey questions with Likert sliding scale responses](image3)

![Figure 4: Survey Responses before and after training (* p <0.05)](image4)

DISCUSSION

Research shows that applying HR strategies to treatment of patients with SUD improves health outcomes, leads to healthcare savings, and reduces negative impacts of the community.

Known barriers to appropriate care of patients with SUD include:
• Education and training
• Stigma, misconceptions, and implicit bias
• Lack of confidence and skills

Prior work has shown physician improvement in knowledge and practice after educational interventions. Our training had similar findings with significant improvement in knowledge regarding SUD and HR as well as comfort, confidence, and skills in working with patients who use substances.

This study was limited by small sample size and participants from a single institution the results.

Further study is needed, especially exploring change in practice.

Future goals include expanding the training for attendings and involving other departments and institutions.

REFERENCES


THANKS AND RECOGNITION

• Dr. Leigh Patterson
• Dr. Jennifer Bennett
• Dr. Donald Norris
• Dr. Skip Robey
• Reid Getty, NC Harm Reduction Coalition
• Dr. Allison Schiller
• Josh Foy, Greenville Recovery Center
• Chris Dali, Elkin for Change
• Nederland, Harm Reduction Coalition
• Dr. Cassandra Bradby
• Dr. Emma Roberts, Harm Reduction Coalition

• Becky Gilbird
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