

Are EMS Provider Characteristics Associated With Appropriate Responses During Violent Encounters

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DISCLOSURES

- No conflicts of interest
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BACKGROUND



- Violence against Emergency Medical Services (EMS) providers is increasing.
- Little is known regarding providers' response during threatening encounters.
- Recognition and management of threatening situations is key to provider and patient safety.

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STUDY AIM / HYPOTHESIS

- Our **objective** was to evaluate the association between provider characteristics and response to escalating threats of violence during EMS calls.
- We **hypothesized** that providers with greater EMS experience and training would be more likely to escape threatening situations.

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METHODS

Study Population & Design

- EMS providers of a large county-based system participated in specially-developed patient care simulations.
- Each scenario included the same phases of escalated threats of violence so that providers **should** escape the scene for safety.
- Trained evaluators recorded performance per provider on 51 standardized data elements including time, de-escalation attempts and escape.

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METHODS

Outcome Measures

- **Primary outcome:** whether the provider escaped the unsafe scene before the scenario ended.
- **Secondary outcome:** whether a provider made an adequate de-escalation attempt.

Independent Variables

- Years of EMS experience
- Military background
- Crisis Intervention Training (CIT)

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METHODS

Data Analysis

- Descriptive statistics
- Univariable odds ratios (OR, 95% confidence interval)

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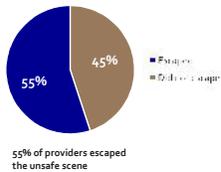
RESULTS

- We evaluated 272 EMS providers as individual members of two-person crews.
- <3% missing data.

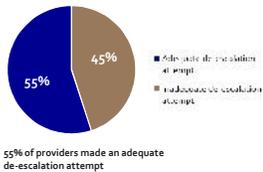
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RESULTS

Primary Outcome
Escaped Unsafe Scene

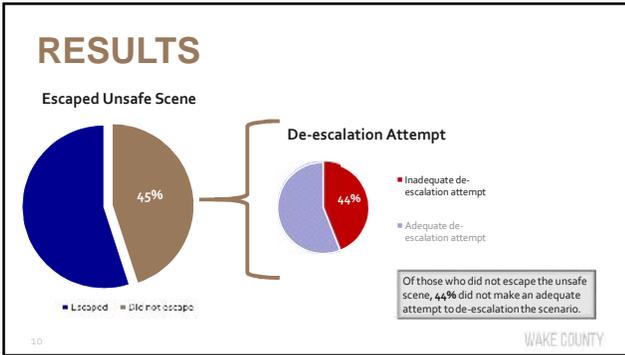


Secondary Outcome
De-escalation Attempt



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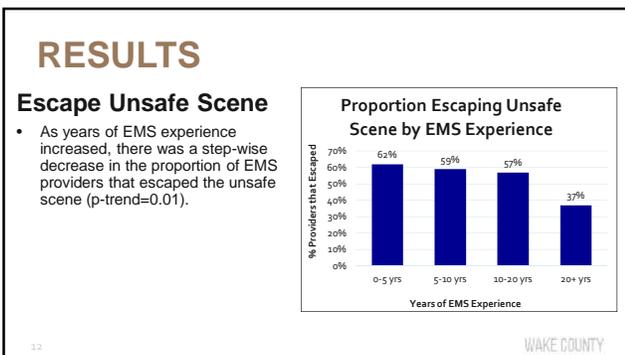


RESULTS

De-Escalation

- Crisis Intervention Training (CIT) was associated with over a two-fold **increase** in odds of adequately attempting de-escalation (OR: 2.13, 95%CI: 1.15-3.93).
- EMS experience (p=0.31) and military background (p=0.39) were **not** associated with odds of de-escalation.

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RESULTS

Characteristics Associated with Escaping the Unsafe Scene

Variable	Univariable OR (95% CI)
EMS Experience	Referent
0-5 years	0.87 (0.44-1.70)
5-10 years	0.80 (0.41-1.57)
10-20 years	0.36 (0.17-0.76)*
20+ years	
Military Background	0.38 (0.18-0.84)*
Critical Incident Training	0.37 (0.20-0.67)*

*p<0.05

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DISCUSSION

- Our hypothesis was incorrect as providers with greater experience were **less** likely to escape a threatening situation.
- Military training and Critical Incident Training were also associated with **lower** odds of escape.
- Possible explanations include differences in training culture over time and provider confidence.

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LIMITATIONS

- These results were obtained in a controlled training environment.
- Providers were aware that they were being observed.
- Single EMS agency.

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CONCLUSIONS

- Nearly half of EMS providers failed to escape a simulated scene with threat of physical violence.
- Experienced providers and those with military background or Critical Incident Training had lower odds of escaping.
- Future research should focus on developing training to improve recognition of failed de-escalation and the need to escape an unsafe scene.

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Thank You

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