

INCIVILITY AMONG NATIONALLY CERTIFIED EMS PROFESSIONALS IS LINKED TO WORKFORCE-REDUCING FACTORS

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BACKGROUND METHODS RESULTS DISCUSSION CONCLUSION

Disclosures

- No conflicts of interest.



Incivility in EMS

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Incivility

- Incivility: negative interpersonal acts that violate norms for social interaction




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Incivility in Healthcare

- Linked to negative individual and organizational effects in other healthcare settings
 - Loss of productivity
 - Absenteeism
 - Burnout
 - Turnover intentions
 - Patient safety lapses
 - Poor quality of care
- Little is known about effects in the EMS workforce




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Objective

- Describe the association between incivility and the following work-force reducing factors among EMS professionals
 - Stress
 - Career satisfaction
 - Turnover intentions
 - Workplace absence



<https://www.firechief.com/2015/02/09/9-sources-of-firefighter-stress/>




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Design & Study Population

- Design
 - Cross-sectional survey administered in September 2016
- Target population
 - Nationally-certified EMS professionals (EMT, AEMT, paramedic)
- Sample size
 - Random sample of 38,000 EMS professionals from National EMS Certification database




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Independent Variable: Incivility Exposure

- Measured using EMS-adapted **Workplace Incivility Scale** (Cortina et al. 2001)
- Example:
 - During the past 12 months while employed at your main EMS job, how often have any of your *immediate supervisors*:
 - Put you down or been condescending to you?
 - Started rumors or gossip about you?
 - 4 point behavioral frequency scale (once every few months or less – at least once a day)




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Outcomes: Workforce-Reducing Factors

- Stress
 - Stress component of the Depression Anxiety Stress Scale (DASS)
- Career satisfaction
- Turnover intentions
- Workplace absence
 - High workplace absence: 10 days in previous 12 months




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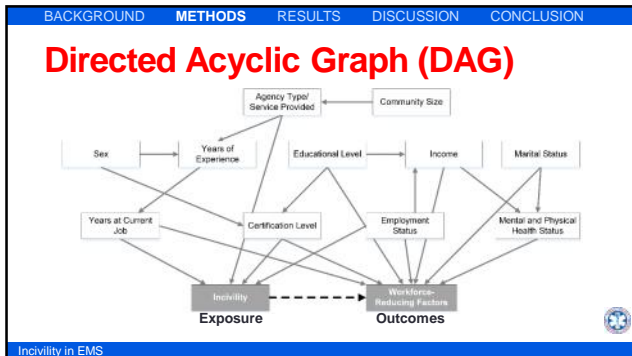
Covariates

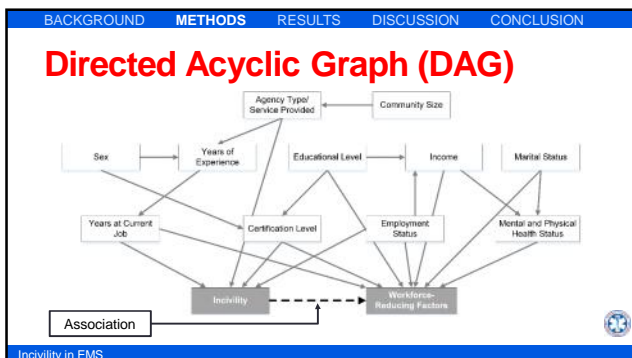
- Selected *a priori* based on directed acyclic graph to understand effect of incivility on each outcome
- Minimally sufficient adjustment set included:
 - Certification level (BLS [EMT], ALS [AEMT, paramedic])
 - Employment status (full-time, part-time/per diem)
 - Sex (male, female)
 - Years at current job (<3, 3-7, 8-15, 16+ years)

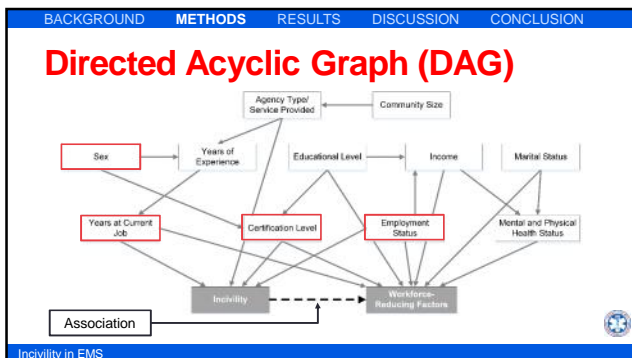
*Significant interaction found and included between certification level and employment status for model of intent to leave EMS



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Data Analysis

- Inclusion criteria: currently practicing providers (EMT or higher) in non-military settings
- Multivariable logistic regression models constructed for each outcome adjusting for *a priori* covariates

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Response and Respondents

- 3,741 responses (response rate=10.3%)
- 2,815 (75%) included in analyses

Demographic	Respondents	Nationally-Certified EMS Population
Male	70%	72%
White, non-Hispanic	87%	74%
BLS (EMT)	54%	67%

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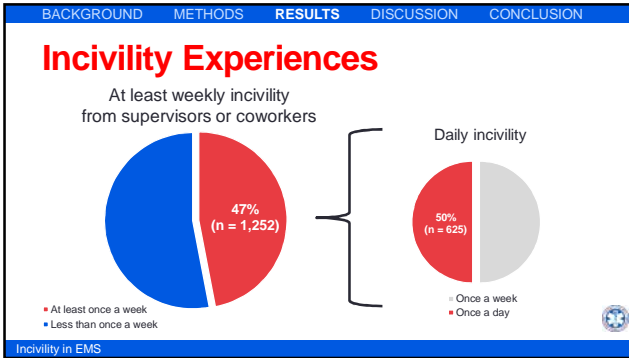
BACKGROUND METHODS RESULTS DISCUSSION CONCLUSION

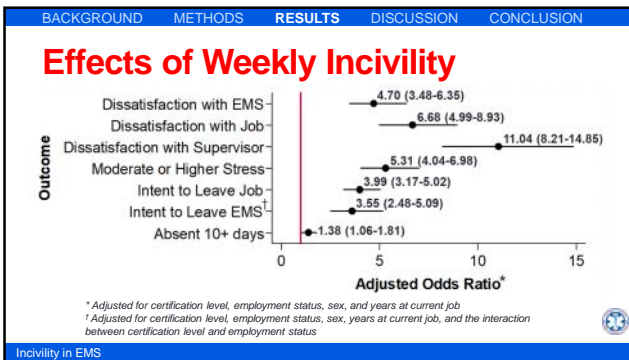
Geographic Distribution

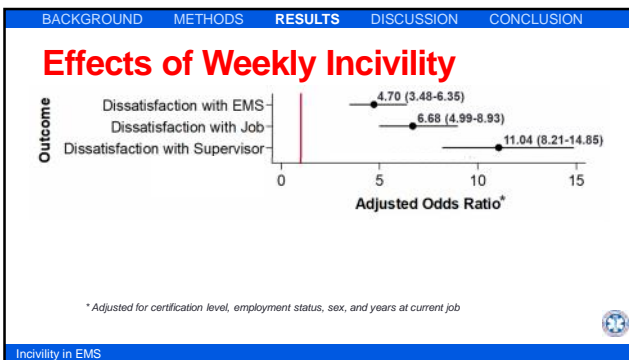
Respondents Nationally-Certified EMS Population

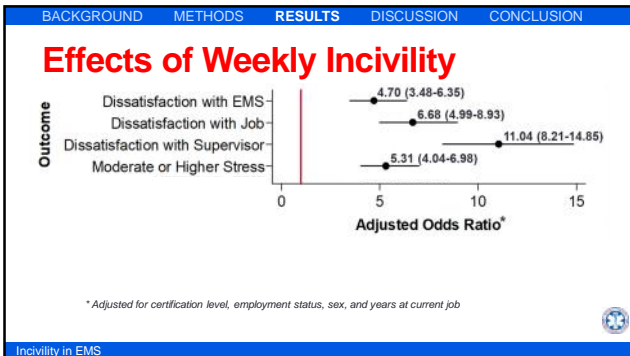
n = 3,741 N = 378,850

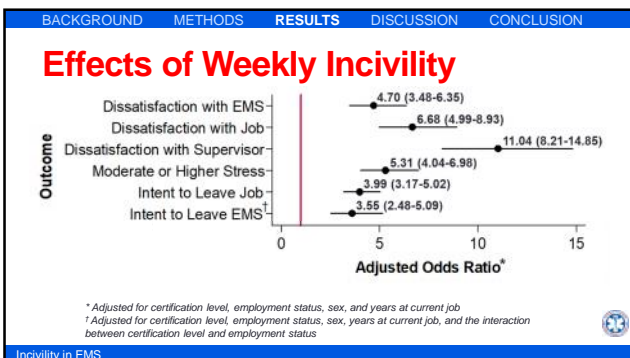
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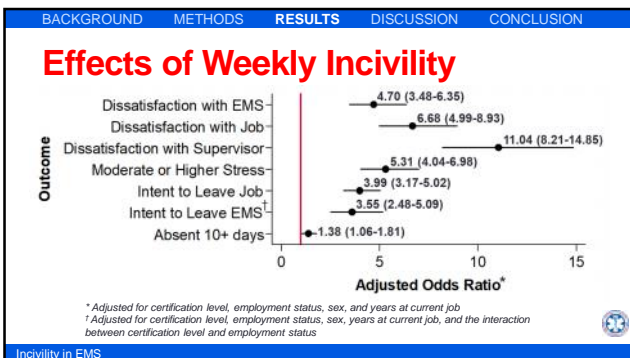













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Strengths and Limitations


- Strengths
 - Large sample size with national representation
- Limitations
 - Self-reported perceptions of incivility and outcomes
 - Response bias due to low response rate
 - Cross-sectional

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Conclusions

- Nearly half the sample exposed to regular incivility
- Exposure linked to increased odds of workforce-reducing factors
- Future research should focus on effect of organizational climate and other interpersonal behaviors on individuals and workforce stability

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QUESTIONS?

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Effects of Incivility

- At least weekly exposure

Outcome	Exposed, n (%)	Unexposed, n (%)	Crude OR (95% CI)	Adjusted OR ¹ (95% CI)
Dissatisfied with EMS	240 (19.2)	70 (5.0)	4.34 (3.30, 5.71)*	4.70 (3.48, 6.35)*
Dissatisfied with main EMS job	306 (24.5)	71 (5.1)	5.89 (4.51, 7.69)*	6.68 (4.93, 9.93)*
Dissatisfied with main supervisor	420 (33.6)	61 (4.4)	11.27 (8.50, 14.93)*	11.04 (8.21, 14.85)*
Moderate or higher stress	287 (25.6)	78 (6.0)	5.32 (4.10, 6.90)*	5.31 (4.04, 6.98)*
Intent to leave job in next 12 months	373 (29.8)	134 (9.6)	3.80 (3.08, 4.68)*	3.99 (3.17, 5.02)*
Intent to leave EMS in next 12 months ²	139 (11.2)	47 (3.4)	3.37 (2.43, 4.67)*	3.55 (2.48, 5.09)*
Absent 10 or more days in past 12 months	138 (11.2)	131 (9.5)	1.21 (0.94, 1.55)	1.38 (1.06, 1.81)*

* p<0.05
¹Adjusted for certification level, employment status, sex, and years at current job
²Adjusted for certification level, employment status, sex, years at current job, and the interaction between certification level and employment status

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Effects of Incivility

- Daily exposure
 - Mostly stable effect with no dose-response relationship seen

Outcome	Exposed, n (%)	Unexposed, n (%)	Crude OR (95% CI)	Adjusted OR ¹ (95% CI)
Dissatisfied with EMS	160 (25.6)	149 (7.42)	4.24 (3.33, 5.40)*	4.48 (3.44, 5.83)*
Dissatisfied with main EMS job	207 (33.2)	169 (8.4)	5.24 (4.18, 6.57)*	5.77 (4.53, 7.37)*
Dissatisfied with main supervisor	261 (41.9)	217 (10.8)	5.91 (4.79, 7.29)*	6.17 (4.92, 7.74)*
Moderate or higher stress	174 (31.5)	191 (10.2)	4.08 (3.25, 5.14)*	3.98 (3.13, 5.06)*
Intent to leave job in next 12 months	211 (33.8)	294 (14.6)	2.88 (2.35, 3.53)*	3.24 (2.59, 4.06)*
Intent to leave EMS in next 12 months ²	87 (14.1)	98 (4.9)	3.04 (2.26, 4.09)*	3.42 (2.47, 4.74)*
Absent 10 or more days in past 12 months	80 (12.9)	189 (9.5)	1.41 (1.07, 1.85)*	1.59 (1.19, 2.12)*

* p<0.05
¹Adjusted for certification level, employment status, sex, and years at current job
²Adjusted for certification level, employment status, sex, years at current job, and the interaction between certification level and employment status

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