

Working on the railroad during COVID-19:

A case study analysis on employee perceptions of safety culture

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INTRO

- COVID-19 presents a unique opportunity to evaluate strengths & opportunities to improve an organization’s safety culture
- The U.S. freight rail industry has continued to operate throughout the pandemic
- Given the importance of safety & safety culture in this industry, it is fruitful to examine how railroads are responding to the pandemic & how employees are perceiving this response

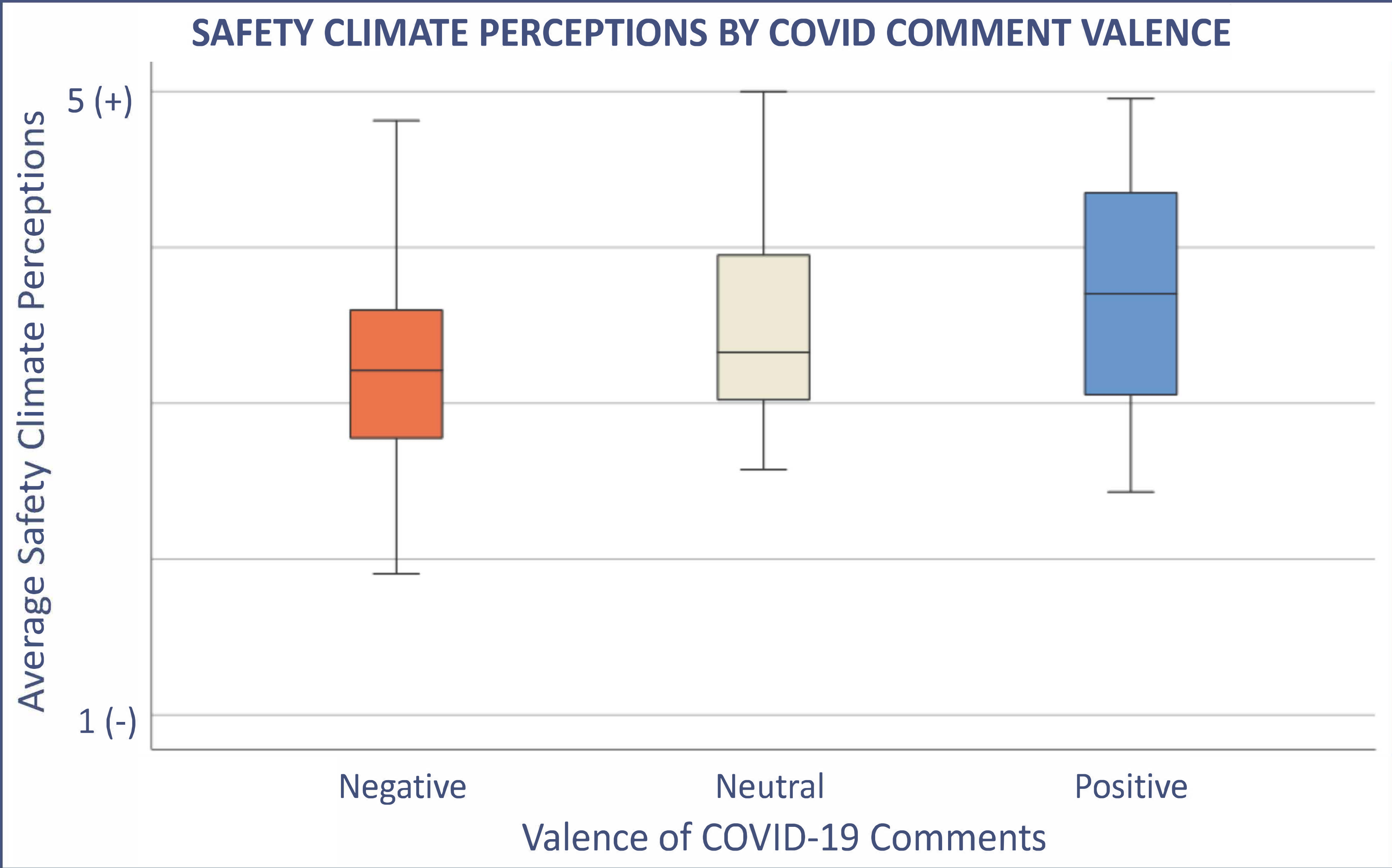
METHOD

- Participants:** Utilized archival survey data from one large U.S. freight railroad collected in mid-late 2020; analyzed data from 196 participants who provided 358 open-ended comments about their railroad’s COVID-19 response
- Measures:** safety climate perceptions (78 survey items*); perceptions of the railroad’s COVID-19 response (one survey item & an open-ended comment section); all survey items scored using a 5pt agreement scale
- Data preparation:** Coded open-ended comments into themes/categories & assigned each a valence (1 = negative, 2 = neutral, 3 = positive)
- Analyses:** Bivariate analyses & regression examined the relationship between perceptions of safety climate & the railroad’s COVID-19 response

*Note: The safety climate measure used in this study is part of a larger safety culture assessment conducted by the Short Line Safety Institute



Railroad employees generally perceived **opportunities for improvement** in their railroad’s **safety culture & COVID-19 response**.
More positive perceptions of **safety culture** predicted more positive perceptions of the railroad’s **COVID-19 response**.



These results bolster the **value** of a **strong safety culture!**

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QUALITATIVE & QUANTITATIVE FINDINGS

Top 5 themes/categories extracted from open-ended COVID comments N _{participants} = 196; N _{comments} = 358)			
RANK	THEME	CATEGORY	FREQ.
1	TIE: A) Desire for more consistent COVID-19 policy enforcement; B) Cleaning/sanitizing products & masks made available	A) Policy B) Sanitization	33
2	Room for improvement in sanitization	Sanitization	29
3	Requests for more & easier access to cleaning supplies	Sanitization	25
4	TIE: A) General disagreement with some COVID-related policies/response to COVID-19; B) Pandemic denial/exaggerated	A) Opinions about rules B) Sentiments	22
5	Aversion to mask wearing	Opinions about rules	17

Mean, Standard Deviations, & Pearson Correlations (N = 190; p < .001**)				
	Mean (SD)	Safety Climate Perceptions	COVID Comment Valence	COVID Survey Item
COVID Survey Item	3.48 (1.24)	.40**		
Safety Climate Perceptions	3.32 (.61)		.30**	
COVID Comment Valence	1.42 (.74)			.31**
Regression of Safety Climate Perceptions on COVID Comment Valence				
$R^2 = .10$, $F(1, 188) = 16.26$, $p < .001^{**}$				

