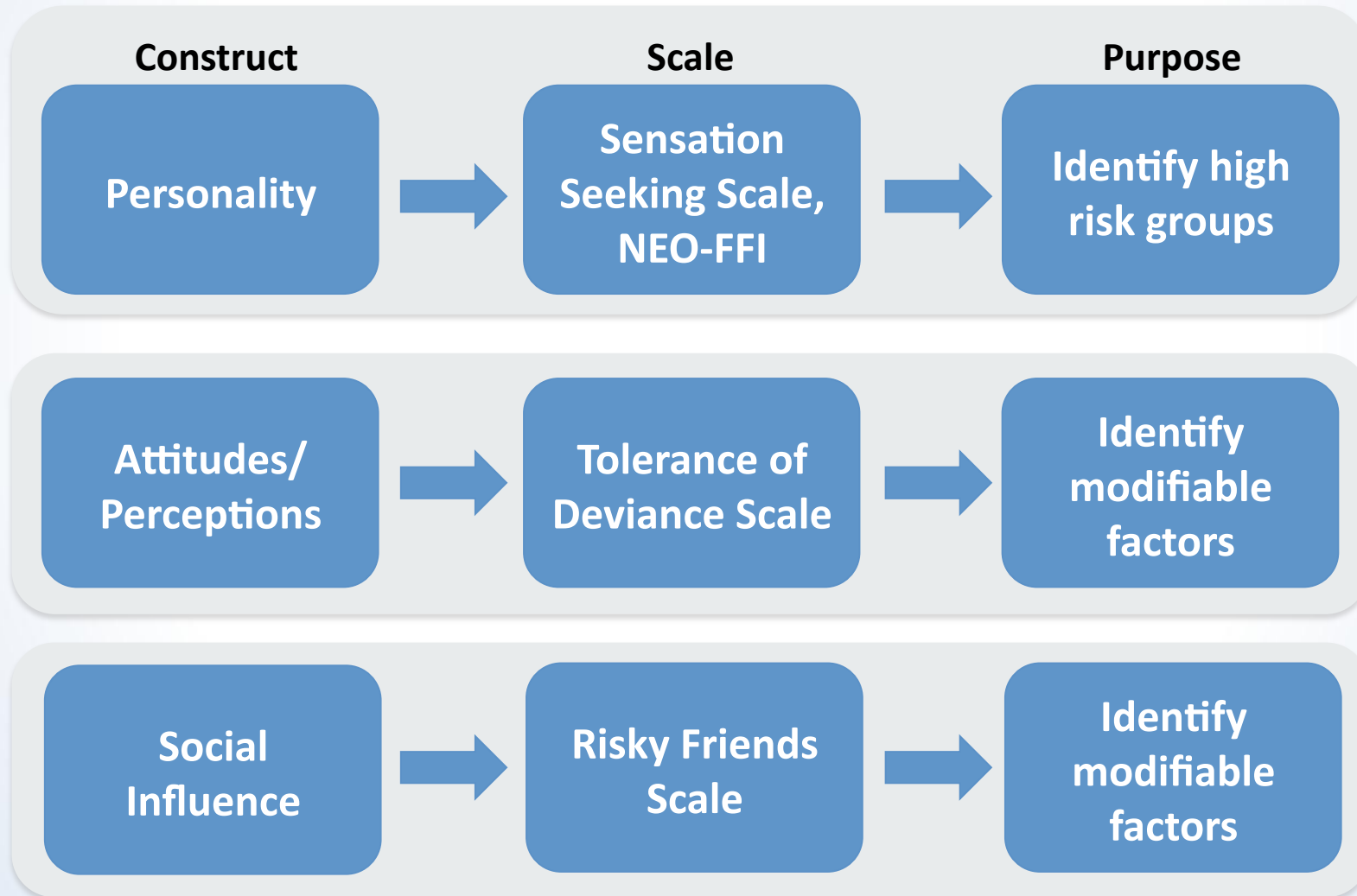


Predictors of Teenage Driving Risk

Fourth International Symposium on Naturalistic Driving Research

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Risk Predictor Categories in NTDS: Individual Characteristics



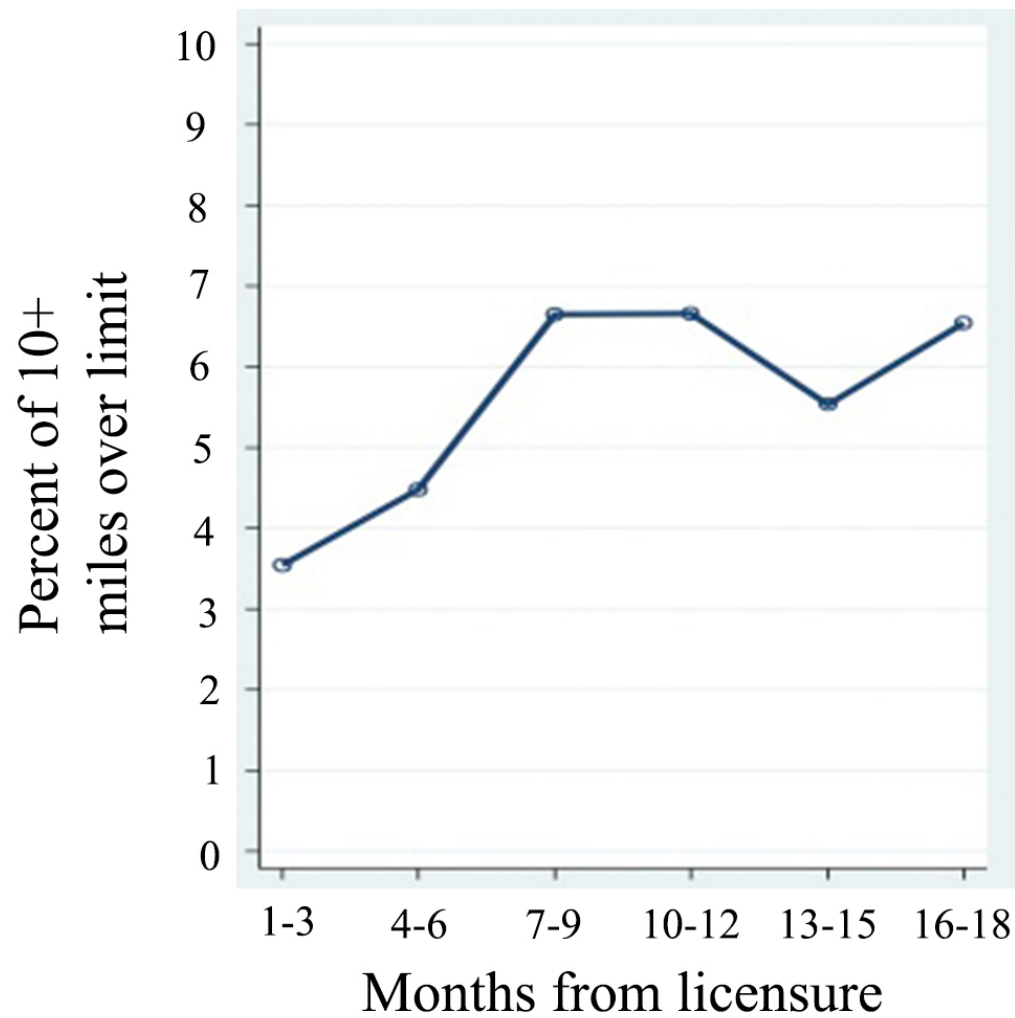
Predictors of Crashes/Near Crashes

Covariate	IRR [95% CI]	p
Passengers		
Adult vs. None	0.26 [0.10-0.73]	0.010
Teen vs. None	1.01 [0.77-1.32]	0.944
Time of day		
Early night vs. Day	0.93 [0.69-1.26]	0.626
Late night vs. Day	0.98 [0.56-1.70]	0.946
Risky friends		
More vs. Fewer	1.87 [1.12-3.84]	0.017

Predictors of Kinematic Risky Driving

Covariate	IRR [95% CI]	p
Passengers		
Adult vs. None	0.32 [0.29-0.36]	<.001
Teen vs. None	0.81 [0.78-0.83]	<.001
Time of day		
Early night vs. Day	0.81 [0.78-0.84]	<.001
Late night vs. Day	0.95 [0.89-1.01]	0.075
Risky friends		
More vs. Fewer	1.97 [1.15-3.40]	0.014

Percent of Speeding



Correlations: Speeding, psychosocial and personality

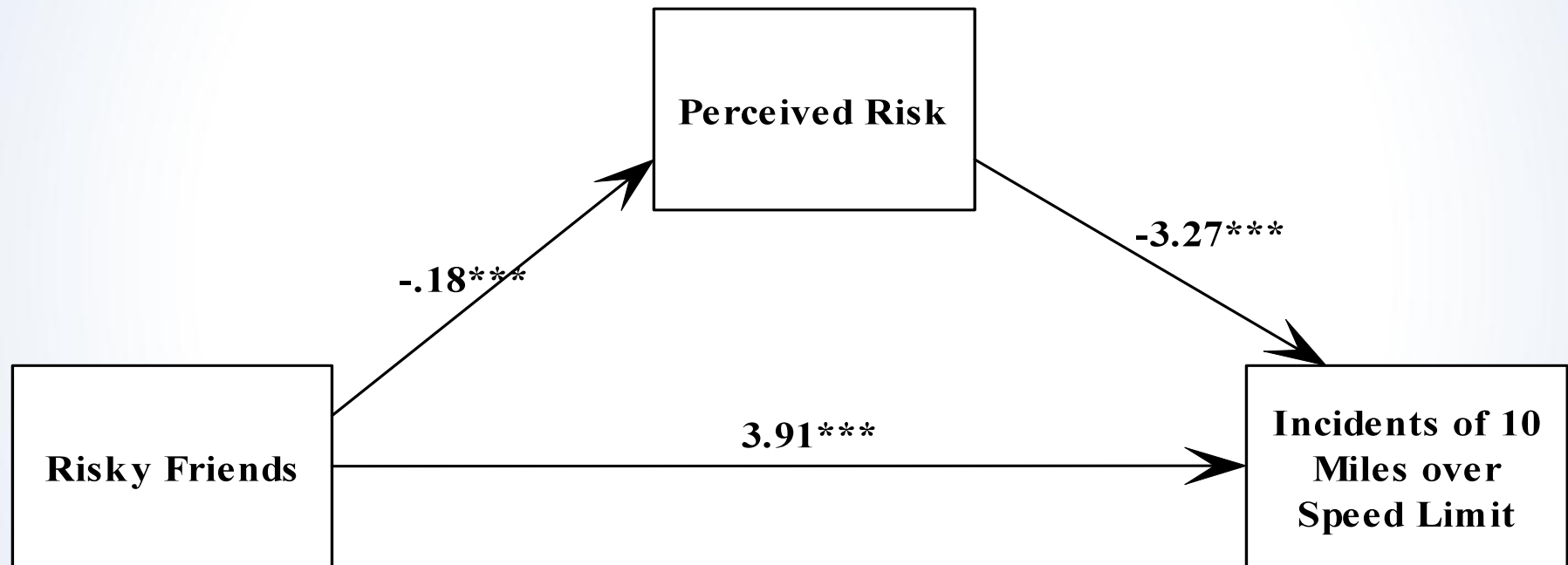
Variable	% 10+ mph over limit
Sensation Seeking	.52 ***
Substance Use	.63 ***
Risk Perception	-.01
Deviance Tolerance	.31*
Peer Pressure Susceptibility	.47**
Risky Friends	.50***

*	p < .001
**	p < .01
***	p < .001

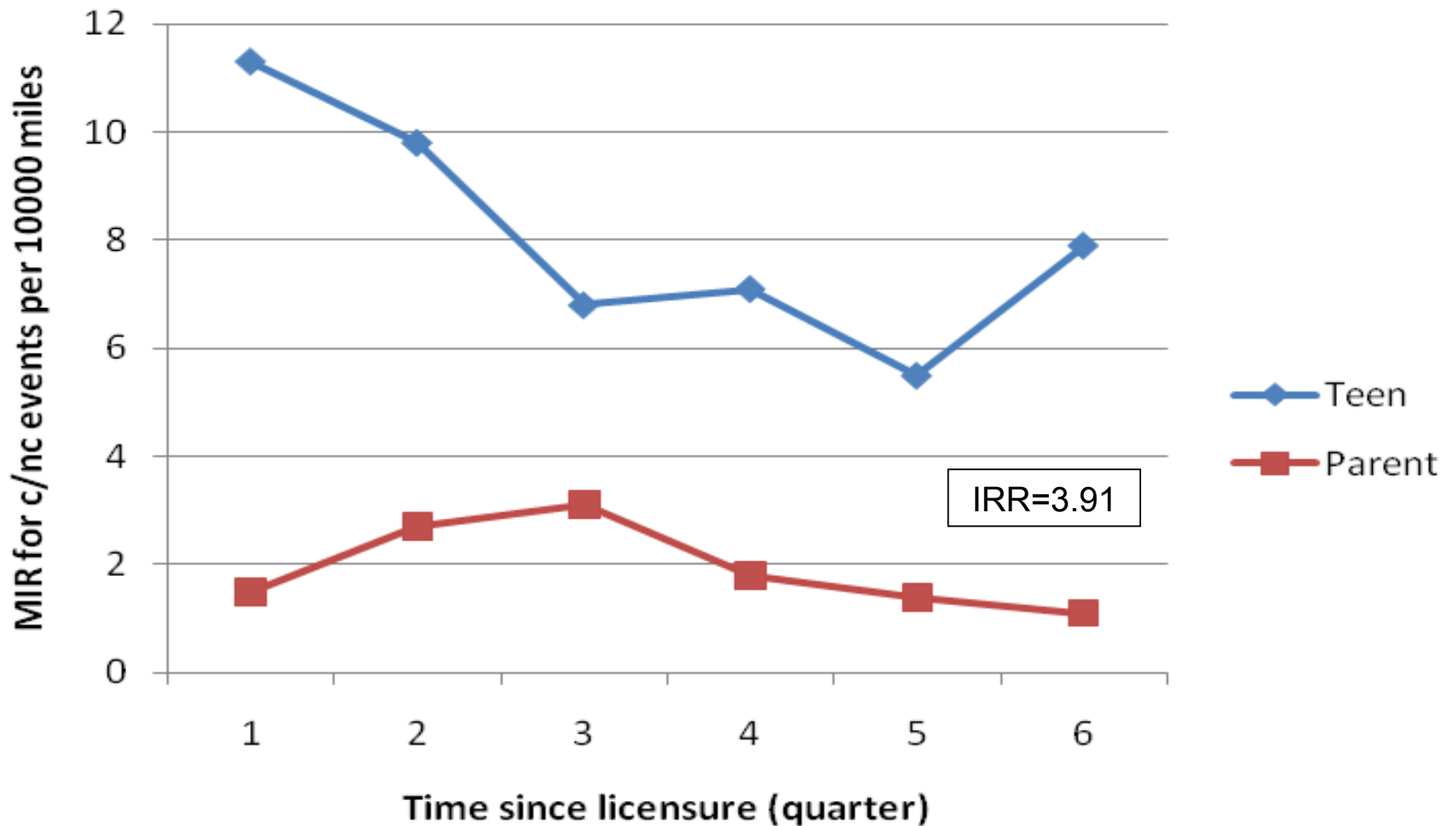
Multivariate analysis

Variable	Beta	p		
Sensation Seeking	9.87	.17		
Substance Use	-0.41	.87	*	p < .001
Tolerance of Deviance	4.14	.07	**	p < .01
Susceptibility to Peer Pressure	-6.87	.06	***	p < .001
Risky Friends	5.78 **	.01		

Perceived Risk Mediates Association of Risky Friends and Speeding



Teen and Parent Crash/Near Crash Incidence Rate Ratios



Future Directions

- Exit interviews with 41 participants
- Qualitative analysis on teen driver perceptions:
 - Peers
 - Parents
 - In-vehicle instrumentation (cameras, etc)
 - Electronic device use while driving