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**Presentation title:** Low resting heart rate as a risk factor for criminal offending among female conscripts

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**Background** Lower resting heart rate is a well-known correlate of criminal offending in men, but few studies have utilized female samples. It remains to be investigated whether lower resting heart rate increases the risk of criminal offending and other risk-taking behaviors among women in a large-scale study with long-term follow-up. **Aim** To study the predictive association between resting heart rate and criminal offending, as well as the association between resting heart rate and fearless tendencies as indexed by unintentional injury among female conscripts. **Methods** We conducted a cohort study of all women born in Sweden 1958-1997 who also conscripted ( $n=15,044$ ), by linking several Swedish population-based registers. The predictor was resting heart rate and the covariates were height, weight, and physical energy capacity, measured at conscription. Outcome variables were criminal convictions obtained from the National Crime Register as well as unintentional injury defined from inpatient or outpatient treatment and death. We used survival analyses to test for associations between predictor and outcomes. **Results** In fully adjusted models we found that female conscripts with lower resting heart rate ( $=62$  bpm) had a higher risk of any criminal conviction ( $HR=1.35$ , 95% CI: 1.04, 1.76), non-violent criminal convictions ( $HR=1.36$ , 95% CI: 1.03, 1.78) and being unintentionally injured ( $HR=1.22$ , 95% CI: 1.08, 1.37), compared to female conscripts with higher RHR ( $=83$  bpm). **Conclusions** Lower resting heart rate is associated with an increased risk of criminal offending in women. A lower resting heart rate is also associated with an increased risk of fearless behaviors as indexed by unintentional injury. Lower resting heart rate as a potential predictor of criminal offending among women should continuously be explored.