

STRESS IN FIRE AND EMERGENCY SERVICE WORKERS OPERATING ON-CALL FROM HOME



bushfire&natural
HAZARDSCRC

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HOW DOES WORKING ON-CALL FROM HOME AFFECT YOUR STRESS? ARE YOU STRESSED IN ANTICIPATION TO A NIGHT CALL? ARE YOU MORE STRESSED THE DAY AFTER A NIGHT CALL?

WHAT WE KNOW

- ▶ After multiple nights of few or no calls, retained firefighters worry that their pager are broken and report disrupted sleep because of the expectation of a call.
- ▶ Cortisol is a marker of one of the bodies two main stress systems.

WHAT WE WANT TO KNOW

- ▶ Is there an effect of working on-call from home on cortisol the day after a night on call (with and without calls)?
- ▶ Is there an anticipatory effect of working on-call from home?

HOW WE DID IT

- ▶ Fire and emergency service workers filled out a daily sleep and work diary, wore an activity monitor and collected seven saliva samples a day (0, 0.5, 1, 3, 6, 9, and 12h post awakening) for one week.

THE DAY AFTER A NIGHT CALL FINDINGS

- ▶ CAR peak was 7 ± 3 nmol.L⁻¹ blunted on mornings after a night call than when off-call ($p < 0.05$), see Figure 1.
- ▶ CAR AUCg, was 5 ± 2 units less on mornings after a night call when off-call ($p < 0.05$), see Figure 2.
- ▶ There was no effect on next day CAR reactivity, CAR AUCi, mean 12h salivary cortisol, diurnal cortisol slope or daily cortisol AUCg.

ANTICIPATIONS FINDINGS

- ▶ There was no anticipatory effect on mean daily cortisol levels, diurnal cortisol slope, daily cortisol AUCg or the 12h cortisol sample.

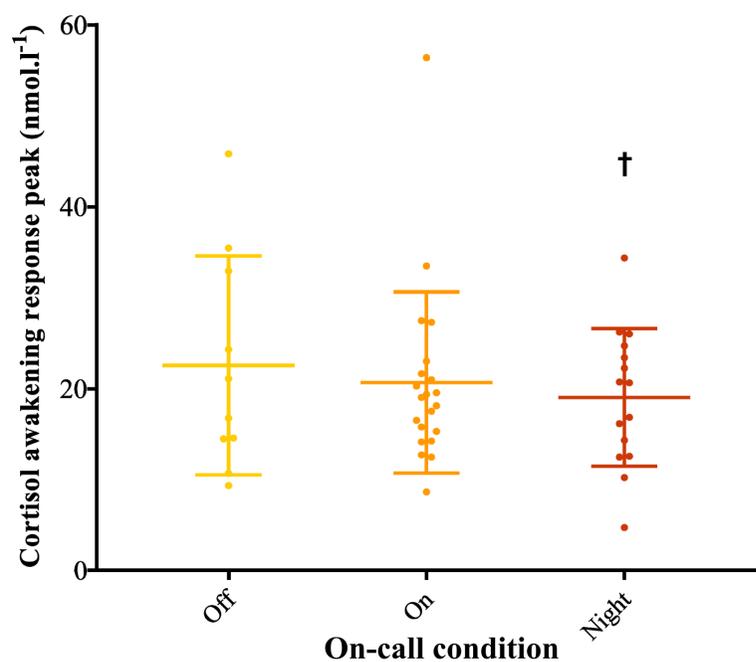


Figure 1: CAR peak in on-call from home fire and emergency service workers.

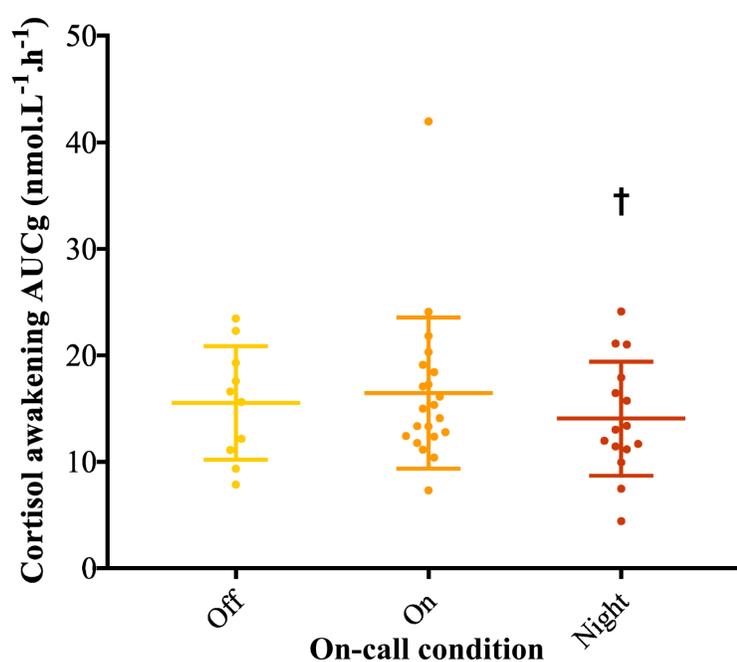


Figure 2: CAR AUCg in on-call from home fire and emergency service workers.

WHAT DOES THIS MEAN?

- ▶ Some aspects of the cortisol profile are affected by receiving a night callout, but not by being on-call without a night call.
- ▶ There does not appear to be an anticipatory effect of working on-call from home on cortisol.

