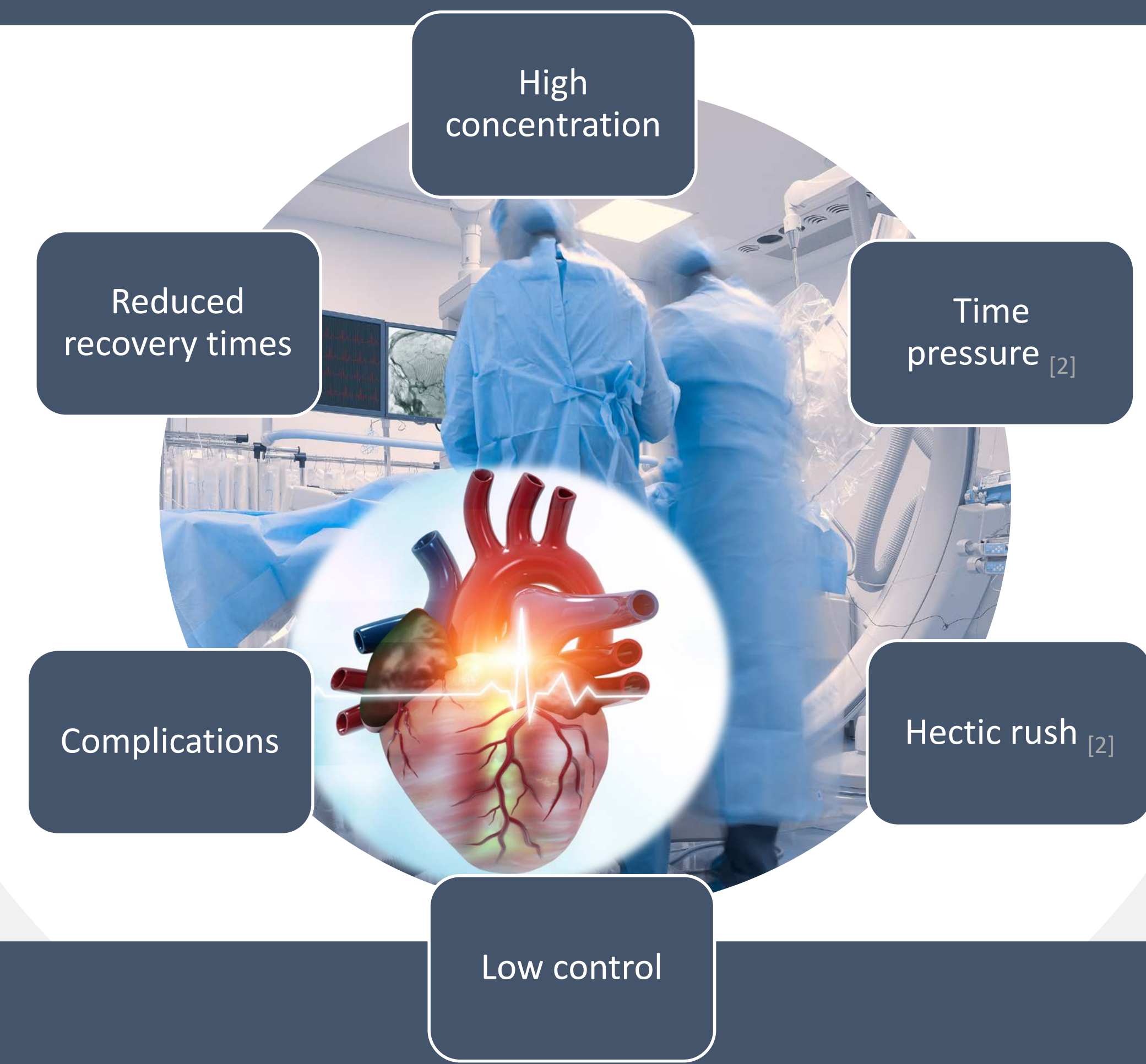


BACKGROUND

- Rise of cardiovascular diseases increases workload for staff in cardiac catheterization (CC) laboratories [1]
- Potential stressful work environment: physically & mentally [2,3]
- Risk: Quality of care and patient safety [3,4]
- Research questions: 1. Extent of psychosocial stress in a CC lab
2. Congruency between psychological strain and physiological biomarkers



INTERVENTION

Mindfulness-based stress reduction [MBSR] [5]

- Bodyscan
- Seated meditation
- Body postures [Asanas]

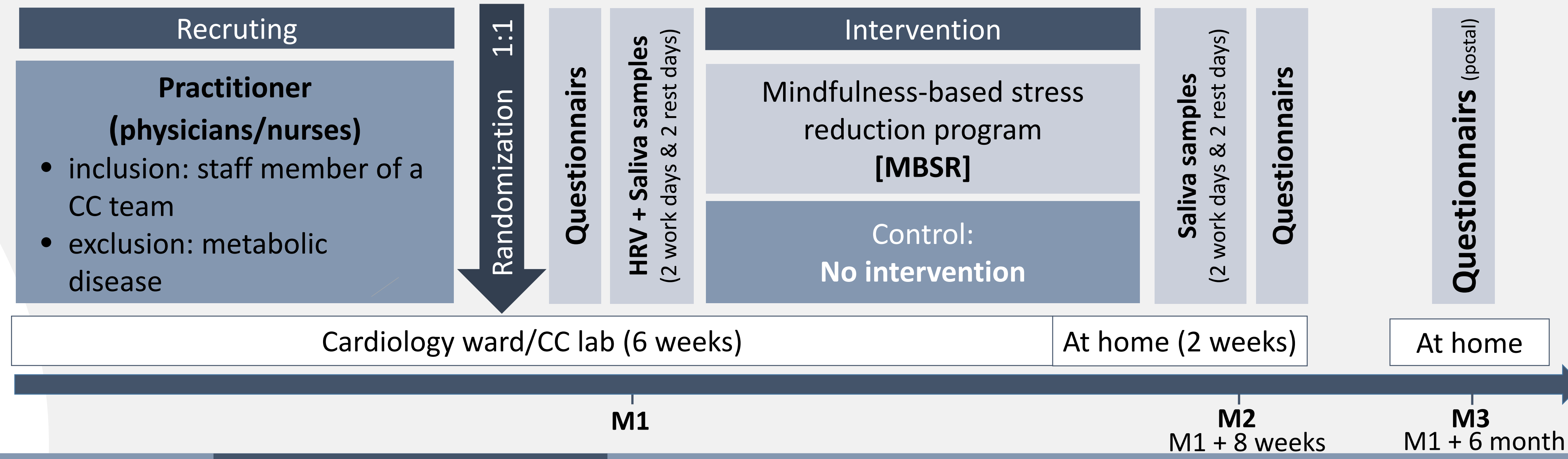
- 6 + 2 weeks
- at workplace + at home
- Guidance by MBSR trainers



DESIGN

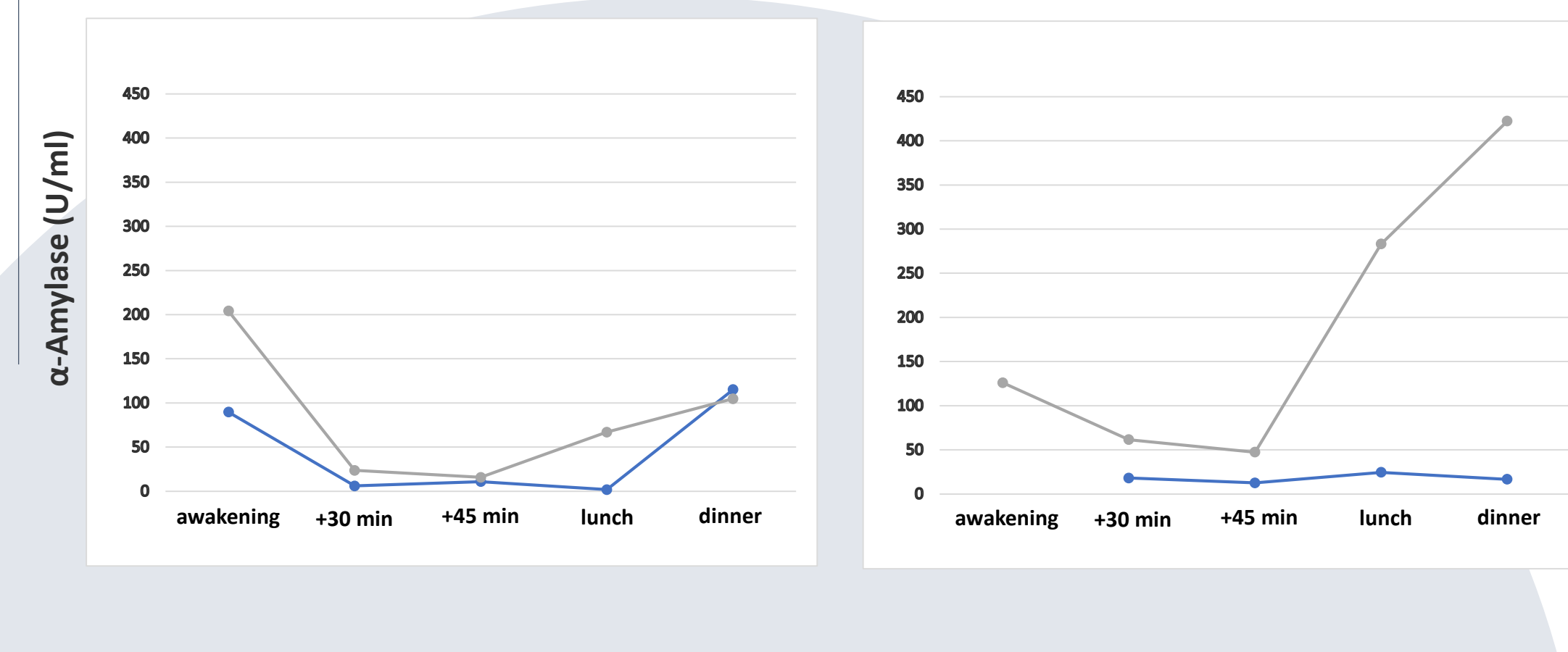
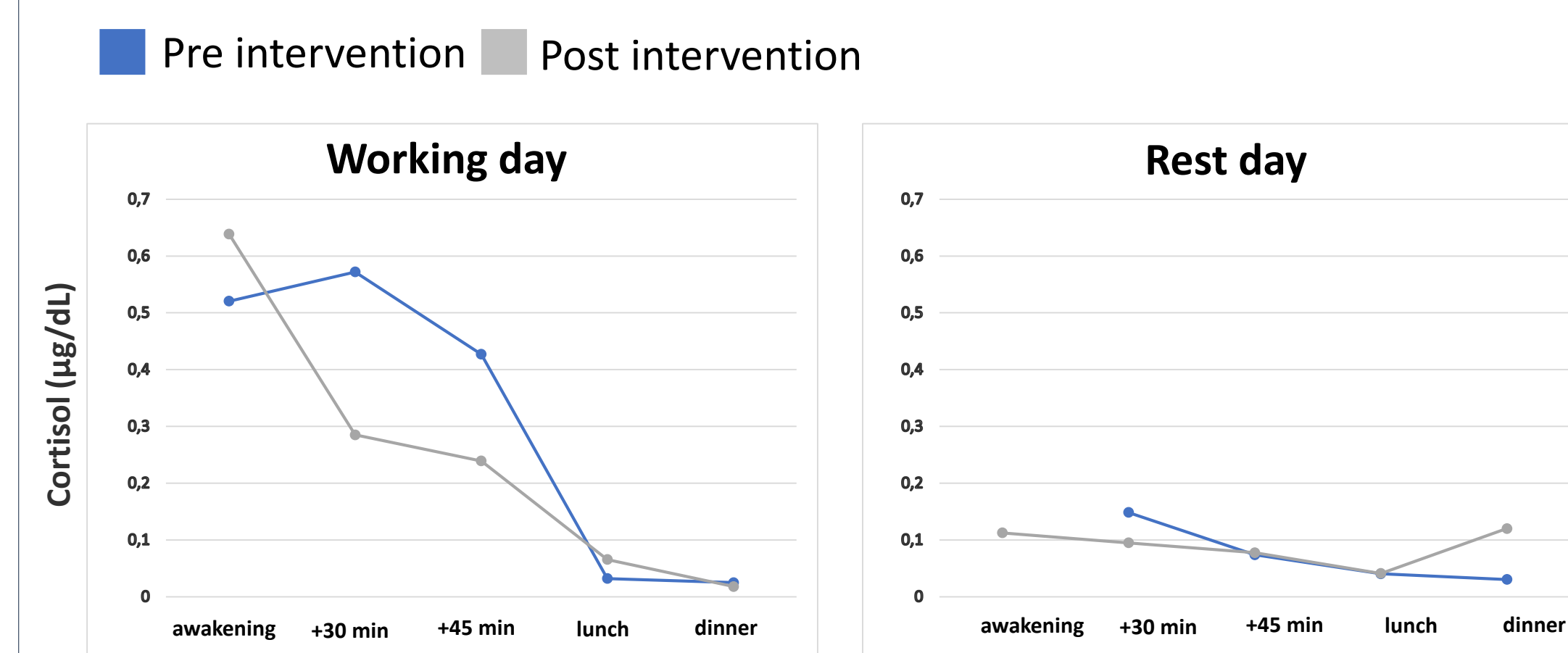
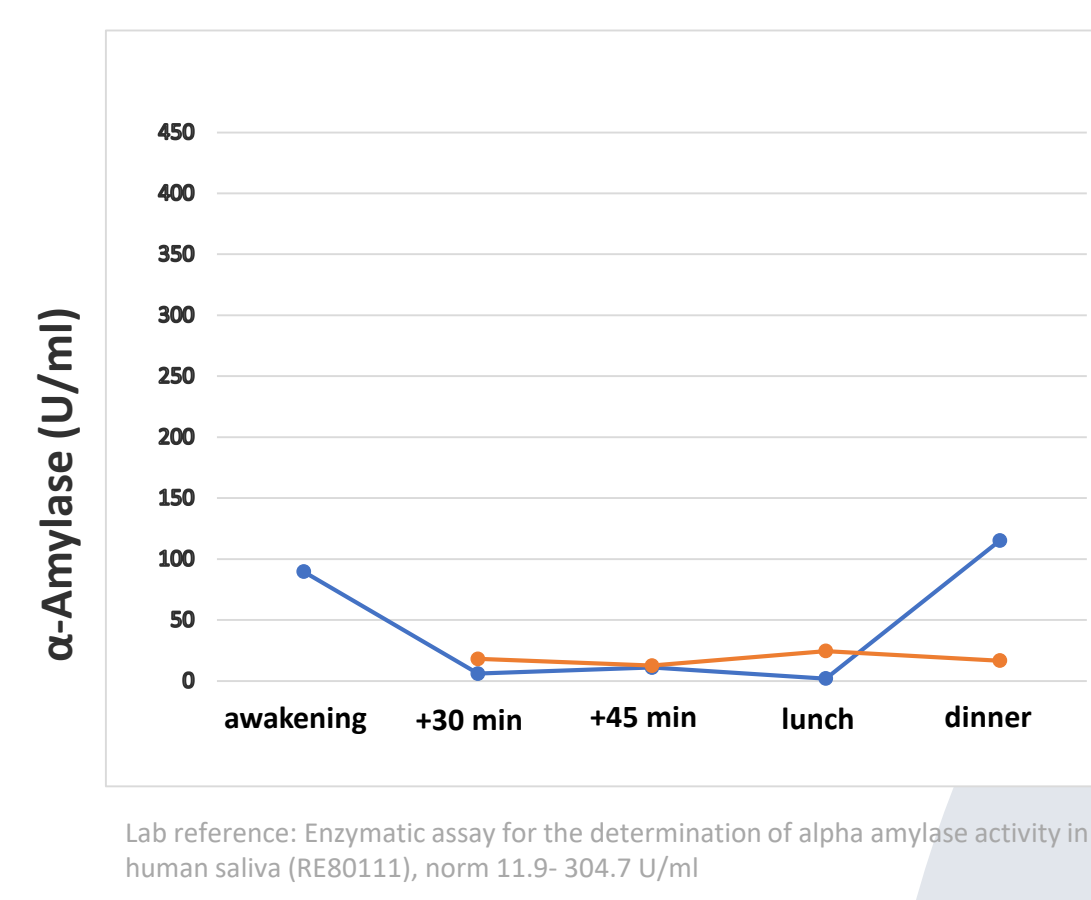
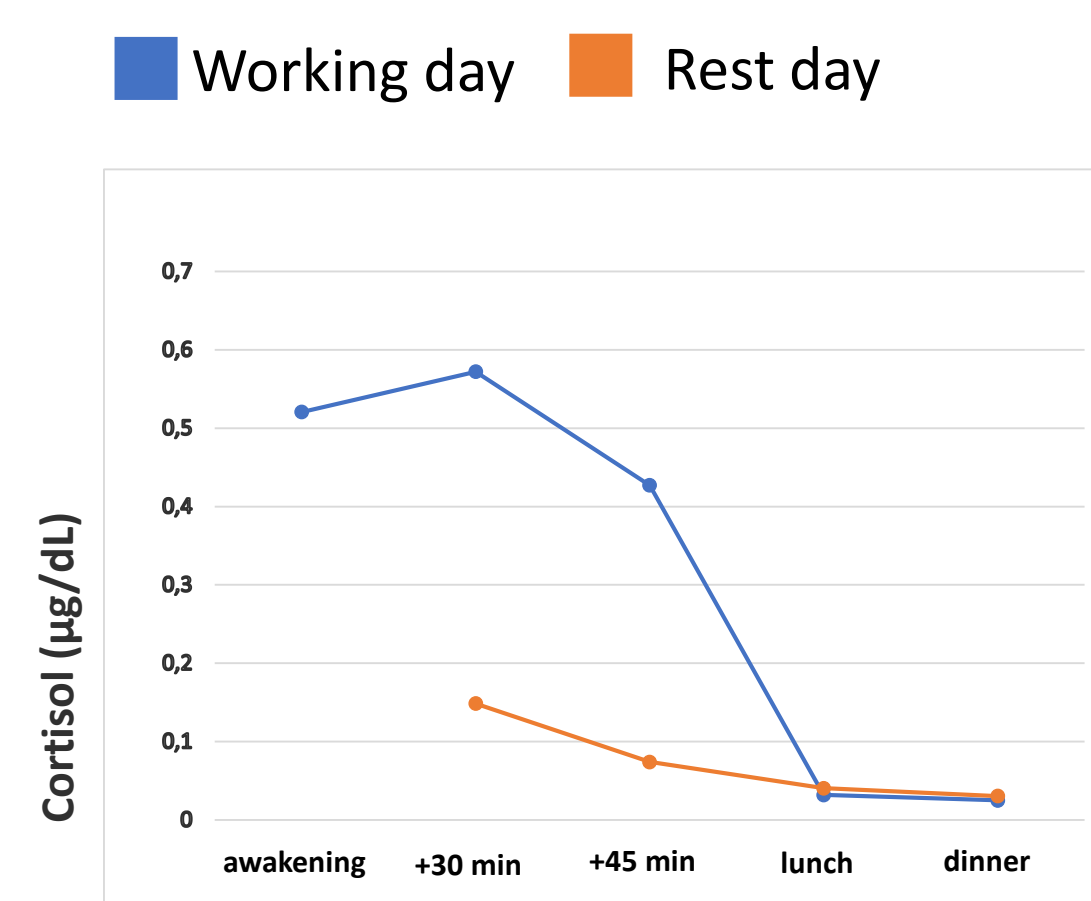
Case report (pilot study)

- female, 46 years
- married, living with partner
- work: 40 h/week
- non-smoker, physically active (200min/wk)
- weight: 91.9 kg
- adherence to MBSR intervention: 7/8
- nutrition protocol



RESULTS

Psychometric measures	M1	M2	Δ_{M1-M2}	Comment
Satisfaction with health (0-10)	5	5	0	Constant, moderate
Satisfaction with sleep (0-10)	2	8	+6	better sleep
Strain (0-10)	5	1	-4	less strain
Vital exhaustion (0-18)	12	10	-2	less vital exhaustion
HADS Anxiety (0-21)	6	6	0	constant
HADS Depression (0-21)	5	1,17	-3,83	less depressed
Comment				
PSS Perceived stress	19			moderate stress (14-26) [6]
PSS Effort	7			norm: 9.75 (1.74) [7]
ERI Reward	19			norm: 17.83 (3.27) [7]
ERI Overcommit	12			norm: 14.93 (3.27) [7]
ERI Effort-Reward-Imbalance	,86			ER < 1 imbalance in favour of reward [7]
TICS Work Overload	42			norm: T = 50 (SD 10) [8]
TICS Social Overload	43			
TICS Pressure to Perform	47			
TICS Work Discontent	46			
TICS Excessive Demands at Work	49			
TICS Lack of Social Recognition	55			
TICS Social Tensions	59			
TICS Social Isolation	48			
TICS Chronic Worrying	46			
TICS Chronic Stress (Screening)	46			
Physiological measures	M1			Comment
Lysozyme (ng/ml) working day	465.6			Lab reference: 500 – 4100 ng/ml
	(334.9)			AssayMax Human Lysozyme ELISA Kit (EL3010-1)
rest day	304.8			
	(151.5)			



- **Baseline:** moderate to high psychosocial stress (psychometric measurements) with potential impact on sleep, vital exhaustion and depressive symptoms
- **After Intervention:** improvements in sleep, strain, vital exhaustion and depressive symptoms and cortisol levels on working days

DISCUSSION

Conclusion

- CC labs are demanding workplace with moderate to high impact on stress level of staff
- Effectiveness of MSBR intervention

Limitations

- Case report, no generalization
- No objective monitoring of awakening and sampling

Perspective

- Analysis on group level needed
- Staff of CC labs could be a promising aim for behavior and structural oriented prevention

