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Center for Mental Health in Old Age Landeskrankenhaus (AöR), Mainz, Germany Ambulatory assessment of stress- and resilience-related mechanisms in everyday life of caregivers of patients with dementia (EMA-DEM): A study protocol

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THEORETICAL BACKGROUND

- Caregivers of patients with dementia (PwD) are particularly vulnerable to the development of stress-related physical and mental illness.
- Especially in daily life, caregivers of PwD are challenged by stress in various different situations resulting in caregiver burden.
- However, most of the research on caregiver burden relies on retrospective surveys using self-reports or experimental studies.
- Little is known yet about the dynamic interplay and mechanisms underlying caregiver burden, stress and resilience in daily life.

OBJECTIVES

The aim of our ambulatory assessment study is to investigate the mechanisms underlying stress and resilience in daily life.

A better understanding of mechanisms underlying stress and resilience in daily life will allow identifying caregivers at risk for diminished health outcomes.



METHODS

Subjects

70 caregivers of patients with dementia and the respective patient

Study Design

Baseline-Assessment:

hair cortisol concentration + saliva microbiome + psychometric test battery (regarding: mental and physical health, anxiety and depression, resilience, perceived stress, coping, relationship quality, caregiver burden, anticipatory grief)

Ambulatory Assessment:



Measures:

Objective markers:salivary cortisol + salivary alpha-amylase + heart rate variability + physical activity + sleep behaviorSubjective markers:items on momentary mood and stress + resilience + coping + caregiver burden + behavioral symptoms of
dementia + relationship quality

End-Assessment:

hair cortisol concentration + saliva microbiome + psychometric test battery

RESEARCH QUESTIONS

- How do stress and resilience factors vary across and within days depending on characteristics of the caregiver, characteristics of the patient with the dementia and characteristics of the environment?
- How do caregivers and patients co-regulate each other and how does dyadic co-regulation affect caregiver burden?
- What are characteristics of caregivers that are increased risk for diminished health outcomes?

DISCUSSION

- This study will provide insights on mechanisms underlying stress and resilience of caregivers of PwD in their daily life.
- Particularly, discrepancies between subjective and objective markers of stress will shed light on the dynamics of stress and resilience in daily life.
- This knowledge will help tailoring individualized interventions for caregivers in daily life.

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Suggested reading:

Wuttke-Linnemann, A., Henrici, C. B., Müller, N., Lieb, K., & Fellgiebel, A. (2020). Bouncing back from the burden of dementia: Predictors of resilience from the perspective of the patient, the spousal caregiver, and the dyad – An exploratory study. GeroPsych: *The Journal of Gerontopsychology and Geriatric Psychiatry*, 33(3), 170.

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