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# Burnout and Resilience Among Pediatric Residents in Stockholm, Sweden: Findings from a Mixed-Methods Study

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# Burnout and Resilience among Pediatric Residents in Stockholm, Sweden: Findings from a Mixed-Methods Study

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## Background

- Burnout is a growing problem among pediatric residents in the United States.
- Increased work hours are a known driver of burnout.
- Swedish work laws limit the resident work week to 40 hours.
- Burnout, workplace engagement and resilience among pediatric residents with a 40 hour work week, have not been described previously.



## Objective

- To measure the prevalence of burnout among pediatric residents at Karolinska University Hospital (KUH).
- To describe the local drivers of burnout and the protective factors that lead to resilience and workplace engagement.

## Methods

### Survey

- Survey of pediatric residents training at KUH (n=71) during academic year 2017/2018.
- Univariate logistic regression was done to measure associations between burnout and participant characteristics.

Construct	Measure
Demographic characteristics	Age, gender, marital status, number of children, living situation, exercise, time outdoors
Residency training characteristics	Year, control over schedule, work hours, recent loss, errors
Health status	PROMIS Global Physical and Mental Health Scales
Stress	Cohen's Perceived Stress Scale
Mindfulness	Cognitive and Affective Mindfulness Scale
Self-Compassion	Neff Compassion Scale
Resilience	Smith's Brief Resilience Scale
Burnout	Maslach Burnout Inventory
Engagement	Utrecht Work Engagement Scale

## Methods

### Interviews

- In-depth key informant interviews of pediatric residents (n=9) were conducted at KUH.
- Semi-structured questions were used to elicit experiences that contributed to symptoms of burnout and promoted resilience.
- Interview transcripts were coded using an applied thematic analysis approach in an iterative process to analyze for emergent themes using the Shanafelt model for drivers of burnout and engagement

## Results

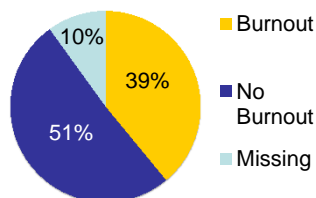
### Survey:

- 51/71 responded (72%).
- 20 (39%) of respondents met criteria for burnout.
- Factors associated with decreased burnout included perceived control over scheduling, better mental and physical health.
- There was a higher proportion of burnout among participants with higher stress and those without children.

### Population description

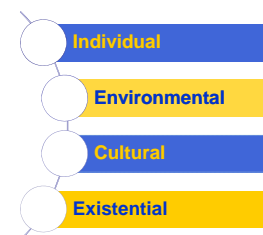
Variable	Mean (SD)
Age	34 (3)
Work (hours/week)	44 (12)
Married or partnered	92%
Parent	59%
Exercise (hours/week)	
2-4	47%
5+	28%
Outdoor time (hours/week)	
2-4	27%
5+	72%
Able to adjust my schedule when I need to for personal reasons	
Sometimes	47%
Often	29%

## Prevalence of Burnout



## Results

**Interviews:** All participants identified a range of drivers of burnout and resilience across four domains:



Drivers of Burnout (n*)
Reduced time with family and friends (9)
Lack of control over schedule (9)
Workload or job demands (8)
Not feeling appreciated (8)
Lack of work-life balance (7)
Lack of continuity (7)
Lack of efficiency or resources (7)
Being a learner (7)

Drivers of Resilience (n*)
Work-life balance (9)
Feeling appreciated (9)
Time with family and friends (8)
Gaining perspective (8)
Camaraderie among residents (8)
Workload or job demands (8)
Being a learner (8)
Helping others (8)
Exercise (7)
Job Security (7)
Team based care (7)
Control over schedule (7)
Structured learning (7)
Responsibility or ownership (7)

\*number of participants who named each driver

### Themes:

Swedish "utopia"

Stakeholder buy-in

Working vs learning

Being vs becoming

## Conclusions

- Prevalence of burnout among Swedish pediatric residents in this study was 39%, which is lower than reported in the US (50-60%).
- Drivers of burnout were identified across all four domains. They included local features of the learning environment, and many are modifiable.
- Protective factors include perceived control over scheduling, better mental and physical health, lower perceived stress, and being a parent.
- Future work will evaluate interventions designed to modify the drivers of burnout and reinforce the drivers of resilience.



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