Stressors in the workplace

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# Aspects of work relevant for stress, well-being, and health

1. **Intrinsic task quality**
   - Complexity; variety; control; requirements for emotion regulation

2. **Barriers to / facilitators of task fulfilment**
   - Overtaxing; uncertainty (role stress); efficiency of work organization; interruptions

3. **Physical conditions**
   - Environment (e.g., noise; heavy loads); musculoskeletal strain (constant sitting / standing)

4. **Work schedule**
   - Shift work (esp. night work); breaks; long hours, constant accessibility

5. **Social conditions**
   - Social stressors: conflict / tension; bullying / harassment; quality of supervision; social support; fairness

6. **Organizational conditions**
   - Control & influence; future prospects; job security; company policy (org. politics), status; recognition; fairness; constant change

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Research examples concerning stressors and health

Task aspects
Ratio of nurses to patients, well-being of nurses, and patient mortality

1 Patient more per nurse

Increased risk for

• Nurse Burnout: 23%
• Nurse Job dissatisfaction: 15%
• Patient Mortality after serious surgery: 7%

Weekly work hours and somatic complaints

e.g., heart, gastrointestinal, sleep, exhaustion

Injuries and Hours of Duty

Folkard, S., & Lombardi, D. A. (2006). Modeling the impact of the components of long work hours on injuries and 'accidents'. American Journal of Industrial Medicine, 49, 953-963 (Fig. 4, p. 959).
Fatigue over time

- Fatigue increases in a nonlinear fashion
- Fatigue after 4 hours is more than double fatigue after 2 hours
- Intercepting early is the best prevention
- Many short breaks prevent fatigue in an optimal way
- Many short breaks to not lower performance, often enhance it!
Injuries and Time since Last Break

Folkard, S., & Lombardi, D. A. (2006). Modeling the impact of the components of long work hours on injuries and 'accidents'. American Journal of Industrial Medicine, 49, 953-963 (Fig. 6, p. 960).
Interruptions

Increasing problem
Often underestimated

- distract
- draw on mental resources (switching attention)
- often irritating
- resuming interrupted task:
  - mentally demanding
  - error prone

Baethge, A., & Rigotti, T., (2013). Interruptions to workflow: Their relationship with irritation and satisfaction with performance, and the mediating role of time pressure and mental demands. Work & Stress, 27, 43-63

Interruptions

No. of interruptions → Forgetting intentions → Lower satisfaction with own performance → Irritation (Irritated reactions, rumination)

Long term: Increasing interruptions:
⇒ lower job satisfaction
⇒ more somatic complaints (Keller et al., 2015)

Baethge, A., & Rigotti, T., (2013). Interruptions to workflow: Their relationship with irritation and satisfaction with performance, and the mediating role of time pressure and mental demands. Work & Stress, 27, 43-63
## Task-avoidant vigilance

- Being vigilant over extended periods time is extremely difficult
- without breaks vigilance typically breaks down after 30 to 45 minutes

### Threat avoidant vigilance

(Belkic et al, 2004, p. 113):
- need to maintain a high level of attention
- to avoid disastrous consequences
- of momentary lapses or wrong decisions

### Typical for occupations such as
- drivers, pilots, air traffic controllers, surgeons, anesthesiologists
- Associated with a higher risk for cardiovascular disease

(Nedic & Belkic, 2010)


Constant accessibility

- Technical developments lower threshold for contact:
  - Call / text / send mail / include in cc: increasingly easy

- Implication: More and more things are being communicated (often outside of work hours) that are not important for the recipient or could wait until the next regular opportunity

On the other hand: Being disturbed for important reasons is legitimate and will often be accepted

Consequence:
- Do not simply prohibit use of new technology after work
- Rather: increase thresholds for using them:
  - Communicate only important and urgent messages


Emotional labor

Hochschild

> Organizations / politeness rules require showing / not showing certain emotions (e.g., towards clients, colleagues, superiors)
  - Typically: Do not show negative emotions – stay neutral or display positive emotions
  - Less frequent: do not show positive emotions (e.g., teacher, bailiff)

Core element: Emotional dissonance
- Discrepancy between emotions felt and emotions shown

Several ways of dealing with emotional dissonance
- Deep acting: change your emotions (empathy; reappraisal)
- Surface acting: Regulate the display of emotions;
  - (negative) emotions themselves do not change

Surface acting is effortful, often annoying

Displaying feelings anyway (deviance) usually is not an option; does not attenuate bad feelings

Research on Emotion Work
Surface Acting is stressful...

...and associated with higher risk for stress symptoms
(Grandey et al., 2013; Hülsheger & Schwewe, 2011; Zapf & Holz, 2006)

- Depletes resources
  - Suppressing emotions requires effort;
  - depleted resources not available for other activities
- Contradicts professional standards
  - Lowers the feeling to do good and professional work
  - Induces feeling of inauthenticity
- Inauthentic emotion display may be detected
  - May impair quality of interaction
- Negative emotions persist
  - Implies that avoiding triggers of negative emotions in the first place is important (Semmer et al, 2016).
  - Note: triggers need not come from a social interaction (e.g. could be a computer breaking down)

Semmer, N. K., Messerli, L., & Tschan, F. (2016). Disentangling the components of surface acting in emotion work: Experiencing emotions may be as important as regulating them. Journal of Applied Social Psychology, 46, 46-64.
163 Participants report 284 stressful experiences over 6 days
Of these, 74 events of 48 participants are related to one’s own performance (= failure).
We expect failure experiences to have different consequences than “ordinary“ stressors

Multilevel Analyse (Poisson) N = 48
(of 163, who reported at least one failure experience); event sampling

Some stressors are stressful but also challenging:
- Time pressure
- Responsibility
- etc.

Challenge Stressors

Other stressors are only hindrances:
- Organizational politics
- Red tape
- Role ambiguity

Hindrance Stressors

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Multiple regression analysis; effects of challenge stressors are controlled for hindrance stressors, and vice versa.
Time Pressure as a double-edged sword

Time pressure (the prototypical challenge stressor)
Often implies stress, but also challenge
Good performance under pressure
⇒ Affirmation of self, appreciation by others

Thus, one can be satisfied and proud –
Yet at the same time prepare one’s burnout

That is probably one of the reasons why people
• who are very committed and
• have much autonomy
accept (or even seek) more and more responsibilities, tasks, and workload


Research examples concerning stressors and health

Social aspects
Social Aspects

Social aspects are especially important for our sense of belonging and our self-esteem

- To what extent are we being appreciated, included, accepted, respected?

- Conflicts often imply attacking one’s integrity / competence
- Lack of Fairness signals disrespect
- Destructive feedback signals disrespect

- Disrespect may be shown intentionally
  - e.g., personal enmity; strategic competition
- But often is communicated unintentionally, even unnoticed

- Leadership is especially important for ensuring fairness / justice (Kuoppala et al., 2008)


Fairness / Justice

> Distributive  Do I get what I deserve?

> Procedural  Are the rules fair? Are they followed impartially?

> Interactional  Do I have a voice? Am I being heard? Are my concerns taken seriously?

Fairness signals appreciation
Lack of fairness signals disregard

Imbalance between Effort and Reward

Demands → Effort → (Over-)Commitment → Motivation

Rewards

Recognition, Support
Pay, Status,
Job security

Imbalance:
Higher Risk for Illness
such as CVD

Changes in superiors' fairness and risk of health impairments

6895 civil servants (men) aged 35–55

Self-rated health in phase 3 (1991-93) as a function of changes between phase 1 (1985.88) and 2 (1989-90). Controlled for fairness phase 1, health phase 1, age, employment grade, and all variables significantly predicting health from previous conditions.

Results for women very similar. Significant trend, but only adverse changes significantly different from no change.

Perceived change in fairness

Conflict

- Merely task-related differences are not necessarily stressful.
- But: They tend to become increasingly emotional.

- **Relational conflicts**
  - typically imply rather *intensive* emotions (esp. anger)
  - tend to escalate
    - one word leads to another...
    - counterarguments develop to personal attacks
    - the climate becomes increasingly poisoned
  - Such conflicts are stressful; we often ruminate about them for quite some time

- Mobbing / Bullying: extreme form of conflicts
  - fortunately rare
  - But extremely stressful and endangering health

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Predicting Body-Mass Index by social Stressors over 2 years

72 employees (52 men, 20 women) from a Swiss service provider.

Social stressors: conflict, tension
Controlled for BMI t1; age; sex

Social Exclusion (Ostracism) and Sleep Quality in the following night

e.g., *Today at work I had the impression people were avoiding me*

- **Social Exclusion During the workday**
- **Work-related Worries in the evening**
- **Impaired Sleep Quality Fragmentation** assessed via actigraphy


(Subtly) Offending Feedback

<table>
<thead>
<tr>
<th>Destructive criticism (Baron, 1993; Raver et al., 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• rude,</td>
</tr>
<tr>
<td>• attributing problems to incompetence / lack of motivation</td>
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<tr>
<td>• hurts, impairs motivation, poisons the social climate</td>
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<table>
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<tr>
<th>However, one can offend people in much more subtle ways…</th>
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<tr>
<td>• dwell on mistakes;</td>
</tr>
<tr>
<td>• explain them at length;</td>
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<tr>
<td>• list a great number of possible consequences</td>
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The problems are increasingly magnified
Mistakes appear very obvious and easy to avoid
⇒ *The recipient appears increasingly incompetent / unmotivated*

<table>
<thead>
<tr>
<th>Important:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• All very friendly</td>
</tr>
<tr>
<td>• No explicit attributions (Krings et al., 2015)</td>
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Social aspects of task characteristics

Tasks do not only have intrinsic characteristics
They also send social messages
For instance: Granting control signals trust
Legitimate and illegitimate Stressors

- Some stressors are legitimate: They are part of one‘s professional role, are unavoidable
  - e.g. overtime in hospital due to emergency
- Other stressors could have been avoided, are illegitimate
  - e.g., having to clean up the mess of the shift before us

Example: The social meaning of heat

- Source of heat that could be placed somewhere else

Illegitimate stressors are perceived as demeaning:
"They don‘t take us seriously“ “
Therefore they are associated with more stress than legitimate stressors
Illegitimate Stressors and Ressentiments towards one's organisation
e.g., rancor, anger, hurt

Multilevel-analysis. Controlled for: Stressfulness; age, se, task-related stressors and resources


N = 384 stressful situations (daily hassles) legitimate / illegitimate: +/- 1 SD
Illegitimate Tasks: violation of norms about what can reasonably be expected from a given job holder

- Because they are perceived as unnecessary
  - e.g. because work is poorly organized
    (e.g., incompatible computer systems)
  - Because they are not part of one’s occupational role and are regarded as unreasonable
    - e.g. non-nursing activities (serving vs. caring)

Background:
- Roles as expectations
- Roles as sources of identity
- Human striving for a positive identity
  \[\Rightarrow\] Violating role expectations offends (professional) identity

Illegitimate Tasks and Stress-Symptoms in various studies

Sample Questions:
Do you have work tasks to take care of, which keep you wondering if they have to be done at all?
Do you have work tasks to take care of, which you believe should be done by someone else?

- Self-esteem
- Ressentiments towards one's organization
- Burnout: Exhaustion / cynicism
- Counterproductive work behavior
- Cortisol
- Quality of Sleep

A number of factors are statistically controlled in these studies (e.g., role stress, social stressors, justice, age, sex)

Thank you!