

**Risk factors of burnout  
between physicians**

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MODERNET meeting  
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**Classification of workload by type**

- ◉ Biological stress (physiological stress) - Physical, chemical or biological factors
- ◉ Physical stress - muscular activity
- ◉ Psychological stress (neuropsychic stress) - a process of primary psychic nature
  - sensoric
  - mental
  - emocional

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**Workload resources**

- ◉ content of work and working conditions
- ◉ organizational role
- ◉ relationships between people in the organization
- ◉ career development
- ◉ organizational structure and climate
- ◉ relationship home (out-of-work area) and work
- ◉ job shock, alternatively technostres, or video display terminal shock

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### Stress and health

- neurotic symptoms to disease
- indirect non-specific effects on the immune system of the organism (inadequate protection against infections)
- unhealthy lifestyle
- higher incidence of DM II-type risk factors (obesity, physical inactivity, smoking and alcoholism)
- psychosomatic diseases (e.g., stomach ulcer, duodenum, ICHS, vertebrogenic disorders, asthma)
- coronary heart disease
- stroke (ischemic)

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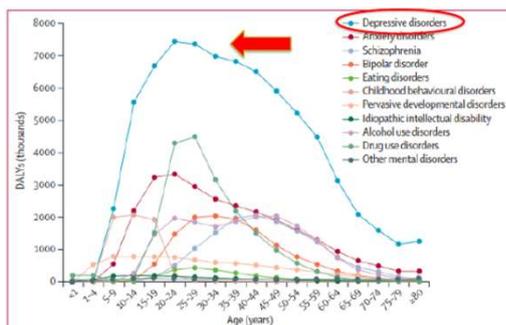
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### Stress and health



Whiteford 2010: Disability-adjusted life years (DALYs) a jednotlivé mentálne poruchy

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### BURNOUT

- development when there is disproportion of stressors (factors, which humans plague) and opportunities to deal with hard situation (salutors)
- Contributing factors of burnout synd.:
  - long-term stress and overload
  - frustrating failure to meet needs and expectations
  - high emotional load
  - negative relationships in social environment
  - the negative impact of the environment, working conditions and work organization

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**Components of burnout syndrome**

- ◉ *Physical exhaustion* - total weakness, significant decrease in energy, and chronic fatigue.  
Nonspecific symptoms: headache, nausea, tension, psychosomatic diseases (gastroduodenal ulcer, hypertension, etc.) Changes in eating habits, body weight changes and sleep disorders (fatigue, inability to fall asleep)
- ◉ *Emocional exhaustion* - feelings of sorrow, helplessness and hopelessness, fears, pessimism, sadness, disillusionment. In behaviors there is irritability, nervousness, lack of empathy and interest in the environment
- ◉ *Mental exhaustion* - it shows a negative attitude towards oneself, to work and to the world  
Loss of ideas, hopes, plans, courage, creativity - life loses value

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**BURNOUT**

- ◉ Phase of burnout:
  1. enthusiasm, great hope and unrealistic expectations (voluntary overwork loading)
  2. stagnation - initial enthusiasm compensate to focus on goals other than work
  3. frustration - questioning the efficiency and the sense of work
  4. apathy - appears when a person is permanently frustrated, has no possibility to change this situation, and is either financially or mentally dependent
  5. stage of intervention - steps leading to elimination of burnout and interruption of the cycle of disappointment

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**Survey goals**

- What is the incidence of the burnout syndrome among healthcare workers?
- Whether it affects age, gender, legal form, size of organization and form of ownership, occurrence of burnout syndrome, its individual areas (emotional exhaustion, depersonalization and personal satisfaction)?
- Which health problems do healthcare workers have in connection to burnout syndrome in self-reporting?

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### Methods

- Questionnaire method (addressed to 279 workers - Return on 40 respondents - 14.33%)
  1. part: size of organization, form of ownership, legal form of organization, position in organization, gender, age, worked years
  2. part: standardized Maslach Burnout Inventory Questionnaire (MBI) - rating based on the number of feelings and the power of feelings
  3. part: self-assessment of health problems (15 areas)
- Statistic methods -  $\chi^2$ -test, Student T-test (SPSS 15.0)

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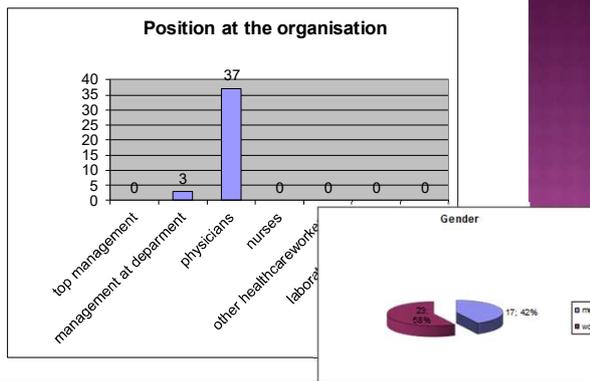
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### Charakteristic of group




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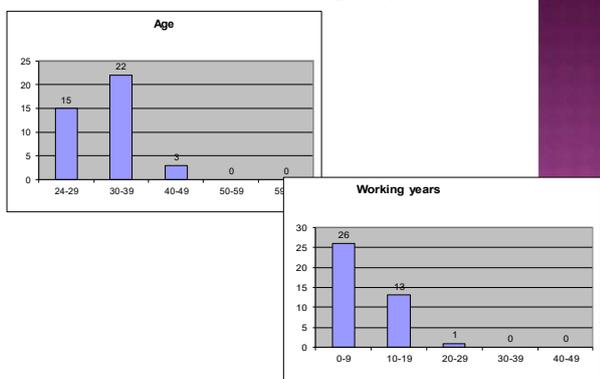
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### Charakteristic of group




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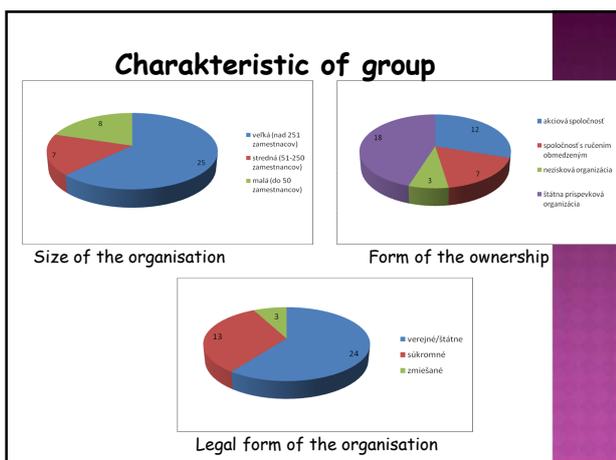
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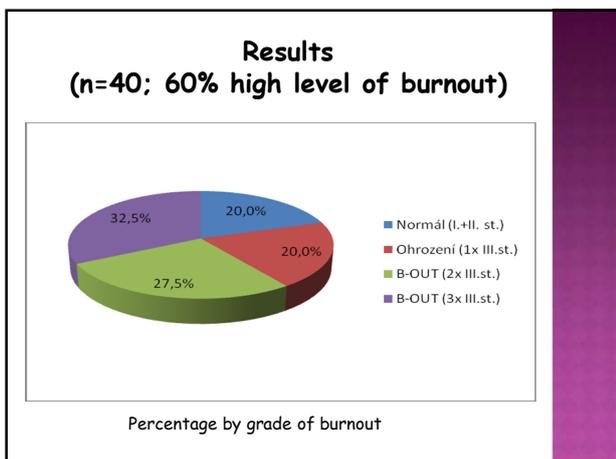
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### Results (n=40)

Area of MBI	Number (percent.)	Level
Emocional exhaustion	1 (2,5%)	Mild
	10 (25%)	Moderate
	29 (72,5%)	Severe
Depersonalisation	1 (2,5%)	Mild
	16 (40%)	Moderate
	23 (57,5%)	Severe
Personal satisfaction	17 (42,5%)	Mild
	14 (35%)	Moderate
	9 (22,5%)	Severe

Degrees of burnout for individual areas of the MBI questionnaire

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**Results ( $X^2$  13,802;  $p < 0,032$ )**

		Depersonalisation			
		Mild burnout	Moderate burnout	Severe burnout	Total
Form of the ownership	corporation	0	4	8	12
	Ltd.	0	4	3	7
	Non-profit	1	1	1	3
	State organisation	0	7	11	18
Total		1	16	23	40

Comparison of depersonalization (MBI) to the legal form of an organization.

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**Results ( $X^2$  22,686;  $p < 0,001$ )**

		Personal satisfaction			
		Mild burnout	Moderate burnout	Severe burnout	Total
Legal form of the organisation	Corporation	3	6	3	12
	Ltd.	1	5	1	7
	Non-profit	3	0	0	3
	State organisation	2	3	13	18
Total		9	14	17	40

Comparison of the area of personal satisfaction (MBI) with the legal form of the organization

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**Results ( $X^2$  10,248;  $p < 0,036$ )**

		Personal satisfaction			
		Mild burnout	Moderate burnout	Severe burnout	Total
Legal form of the organisation	Public/ State	6	4	14	24
	Private	3	8	2	13
	Mixed	0	2	1	3
Total		9	14	17	40

Evaluating the area of personal satisfaction (MBI) to the form of ownership

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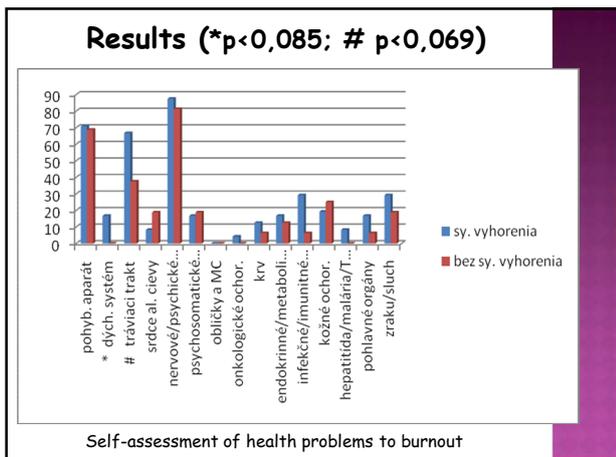
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**Discussion**

- What is the incidence of the burnout syndrome among healthcare workers?
  - Nôtová (2003): 17,7% respondents (n=389) with burnout (similar results Maslach, 1997)
  - our survey: 60%

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**Discussion**

- Whether it affects age, gender, legal form, size of organization and form of ownership, occurrence of burnout syndrome, its individual areas (emotional exhaustion, depersonalization and personal satisfaction)?
  - 13x higher risk of depersonalization among employees of state organizations to other forms of legal organizations (corporation, non-profit, Ltd.) (p <0.032)
  - 22.68x higher probability of personal dissatisfaction among workers in state organizations (p <0.001)
  - private sector - 10x higher personal satisfaction as employees in public or state sector (p <0.036)

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### Discussion

- Which health problems do healthcare workers have in connection to burnout syndrome in self-reporting?
  - 8.4x higher risk of digestive tract illness (e.g. abdominal pain, ulceration, gallstones, pancreatitis, pruritus, diarrhea, etc.) in the group of respondents with a high degree of emotional exhaustion compared to the mild and low degree (p = 0,049)
  - at a low level of personal satisfaction 6x higher contribution of the work stressors to the illness of respiratory system (p = 0,049)

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### Conclusion

- WORLD: Richardson (2008): meta-analysis of the effects of intervention programs on work-related stress management (comparison of studies with cognitive-behavioral interventions, relaxation, organizational change, multimodal approach to intervention and alternative methods of intervention) - the greatest effect in stress management and has been confirmed in **cognitive-behavioral interventions**
- The Korean authors (Kortum, 2015) point out that selective and short-term interventions - **ineffective**
- LOCAL: Enforceability of Decree of the Ministry of Health of the Slovak Republic 542/2007 Z.z. in practice, it is often demanding, or directly unrecoverable, due to the lack of commitment on the part of the employers

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**TAKE HOME MESSAGE:** The workplaces have the potential to be an important context of health promotion and disease prevention.



THANK YOU

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