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# Demands and Resources' Influence on Physician Wellbeing: A Multilevel Perspective

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Being a doctor and staying a person

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# Psychosocial Working Conditions and Doctors' Work-related Wellbeing

- » Globally, 28.8% of doctors report depressive symptoms (Mata et al., 2015)
- » Burnout prevalence typically ranging between 25% and 36% (Prins et al., 2007; Trufelli et al., 2008).
- » These levels:
  - > Are higher than the general population (Shanafelt et al., 2012)
  - > Have progressively increased over time (Shanafelt et al., 2015; Taylor, Graham, Potts, Richards, & Ramirez, 2005)



# Psychosocial Working Conditions and Doctors' Work-related Wellbeing

- » The need to understand the antecedents to doctor work-related wellbeing; however:
  1. Research dominated by doctor burnout (Lee et al., 2013; Prins et al., 2007)
  2. Lack of theoretical frameworks (Prins et al., 2007)
  3. Dominance of individual-level study designs



# Aim

- » The current study aims to examine the predictive association of psychosocial working conditions (namely, job demands, job resources, and organizational-level demands) in relation to three work-related wellbeing measures (perceived stress, presenteeism, work engagement).
- » The Job Demands-Resources (JD-R) Theory (Demerouti et al., 2001) is used to theoretically underpin the postulated pathways among these specified variables.



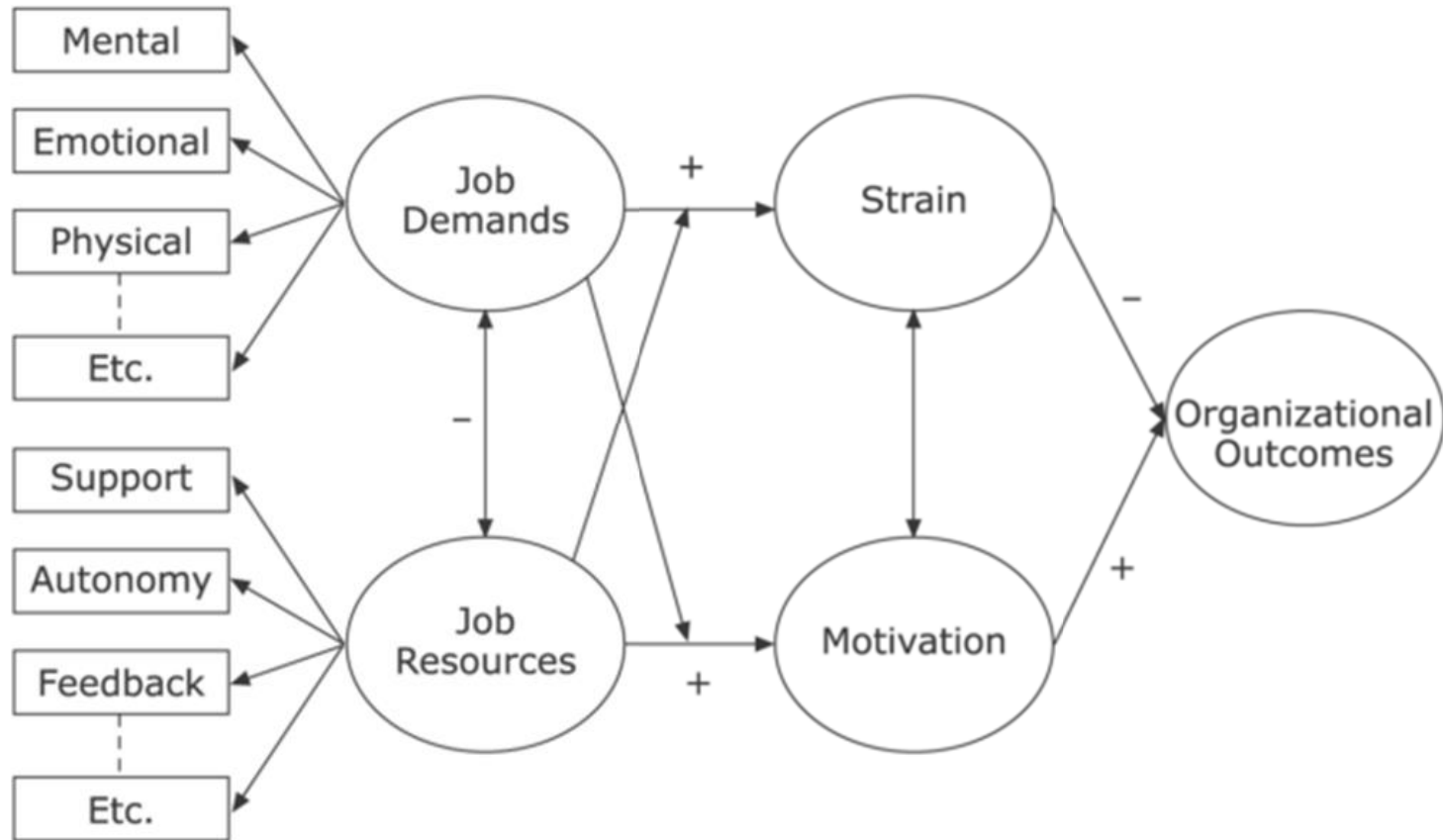
# A Theoretical Framework

- » The Job Demands-Resources (JDR; Demerouti et al., 2001) Theory:
- » **Job demands** are any social, organizational, physical, or psychological aspect of work associated with psychological and/or physiological costs due to sustained effort.
- » **Job resources** are those aspects of work that help reduce job demands, achieve work goals, and/or stimulate personal learning and development.





# The Job Demands-Resources Theory



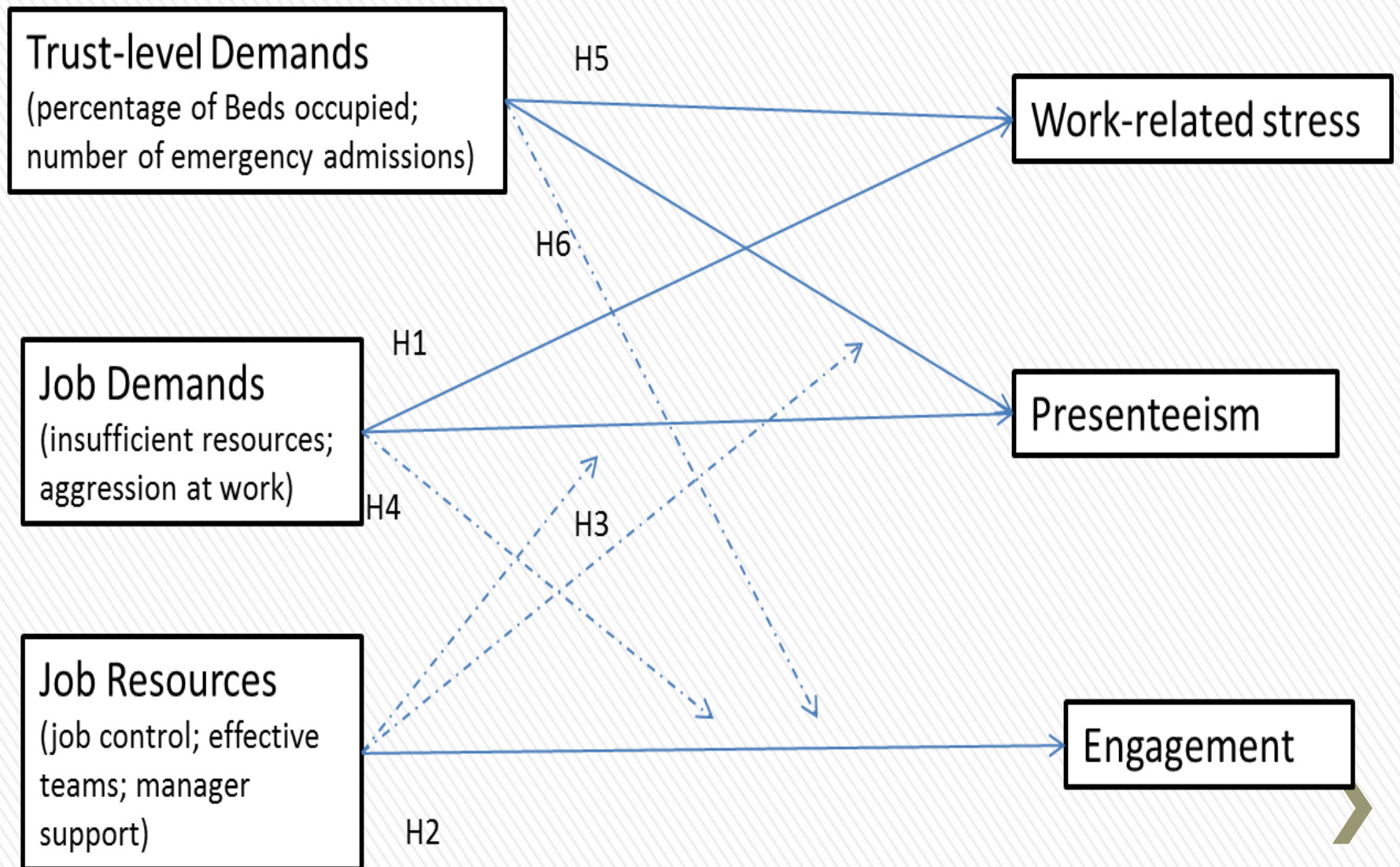
Bakker & Demerouti, 2007



# A Multilevel Perspective

- » Mergers, senior leadership support, and communication are among the trust-level factors that have been found to relate with healthcare workers' job satisfaction and perceived stress (Lim, 2014; Powell et al., 2014).
- » Organizational-level predictors influence the strength of this relationship (Bliese & Britt, 2001). For example, individuals in groups with strong consensus of their leadership reported weaker relationships between job demands and depression than groups with a weak consensus towards their leaders.
- » It cannot be assumed that constructs at the individual-level maintains the same meaning at the organizational-level (Bakker & Demerouti, 2017).







# Sample

- » National Health Service (NHS) Annual Staff Survey
- » October to December 2014 ( $N = 255,150$ )
- » 157 Acute and Specialist Trusts
- »  $N = 14,066$  (medical specialists)
  - > Mean = 90 doctors per trust ( $SD=94.76$ ; median=41)



# Results

	-2LL	Deviance, df change	Sig.
<b>M0. Unconditional model</b>	96380	n/a	n/a
<b>M1. Fixed effects of control</b>	94708	1672, 15	p<.001
<b>M2. Fixed effect of individual-level predictors</b>	79769	14938, 15	p<.001
<b>M3. Fixed effect of trust-level predictors</b>	78070	4208, 6	p<.001
<b>M4a. Moderations at individual-level</b>	75542	20, 18	p>.05
<b>M4b. Random effect and cross-level interactions</b>	78062	8, 14	p>.05

H<sub>1</sub>: Job demands, and not job resources, will predict doctors' perceived stress and presenteeism

	Perceived stress	Presenteeism	Work Engagement
Tenure (w)	.027**	.031***	-.017*
Specialist (b)	-.323*	.204	.400**
Beds (b)	.018	-.712**	-.317
Insufficient resources (w)	.163***	.115***	-.191***
Aggression at work (w)	.159***	.145***	-.066***
Manager support (w)	-.100***	-.061***	.111***
Effective teams (w)	-.015	-.028**	.092***
Job control (w)	-.104***	-.064***	.316***
Percentage of beds filled (b)	-.239	-.028	.311*
Emergency Admissions (b)	.096	.562*	-.496*

Note: \*\*\*p<.001, \*\*p<.01, \*p<.01; (b) = trust-level predictor; (w) = individual-level predictor.

## H<sub>2</sub>: Job resources, and not job demands, will predict doctors' work engagement

	Perceived stress	Presenteeism	Work Engagement
Tenure (w)	.027**	.031***	-.017*
Specialist (b)	-.323*	.204	.400**
Beds (b)	.018	-.712**	-.317
Insufficient resources (w)	.163***	.115***	-.191***
Aggression at work (w)	.159***	.145***	-.066***
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Note: ***p<.001, **p<.01, *p<.01; (b) = trust-level predictor; (w) = individual-level predictor.			

H<sub>5</sub>: High trust demands positively predict perceived stress and presenteeism among doctors, but do not predict doctors' work engagement

	Perceived stress	Presenteeism	Work Engagement
Tenure (w)	.027**	.031***	-.017*
Specialist (b)	-.323*	.204	.400**
Beds (b)	.018	-.712**	-.317
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# The Job Demands-Resources Model

- » Mixed validity within the doctor sample
- » Dual pathways predicted
- » Not one of the interaction effects observed
- » Differentiating into challenge and hindrance demands (LePine, Podsakoff, & LePine, 2005)
- » The detrimental impact of aggression at work and insufficient resources



# The Multilevel Perspective

- » The JD-R's dual pathways not supported
- » May operate differently across different levels
- » The different directions in the relationship between both trust-level predictors with engagement:
  - > reinforces the challenge and hindrance job demands?
- » What other trust-level demands and resources impact doctors' work-related wellbeing?



## Limitations

- » Sample heterogeneity
- » Cross-sectional design
- » Relationships at the individual-level are vulnerable to common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003)
- » Single-item measures used for presenteeism and perceived stress.



## Conclusion

- » The complexity of work-related antecedents to doctor wellbeing
- » Need to broaden our understanding beyond burnout and individual-level measures
- » The JD-R is a useful framework in which to understand the predictive association between job demands, job resources, and trust-level demands on the work-related wellbeing of doctors
- » The need to better understand the differences between challenge and hindrance demands, as well as how to better match job demands with job resources when trying to mitigate the detrimental impact of job demands



# Questions and feedback



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