

Mental health and intervention studies in Norwegian medical students and doctors: a review and update of NORDDOC

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Outline

THE ROLES OF:

- STRESS AND DISTRESS

- PERSONALITY

- INTERVENTIONS

} INTER-
PLAY



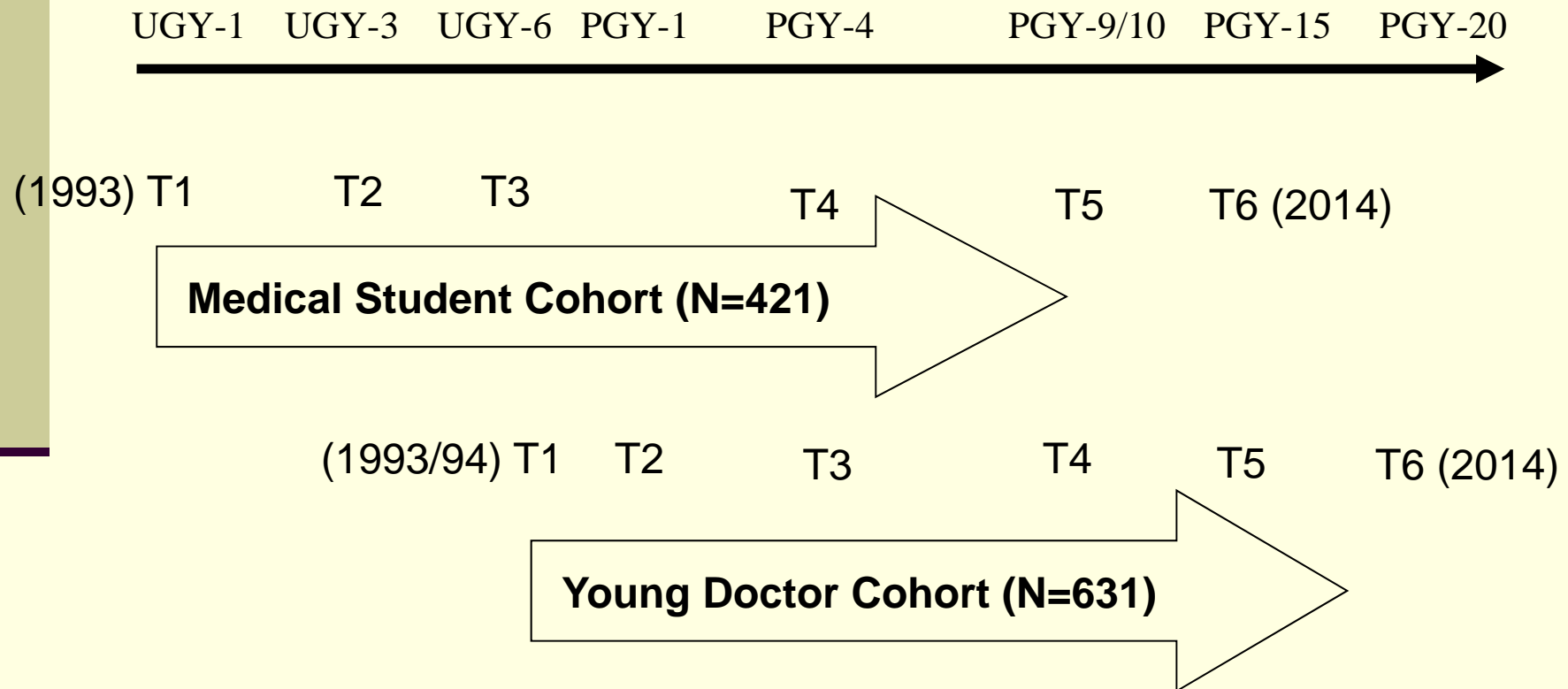
STRESS AND DISTRESS



The Longitudinal Study of Norwegian Medical Students and Doctors (NORDOC) - *Steps of career at follow-up*

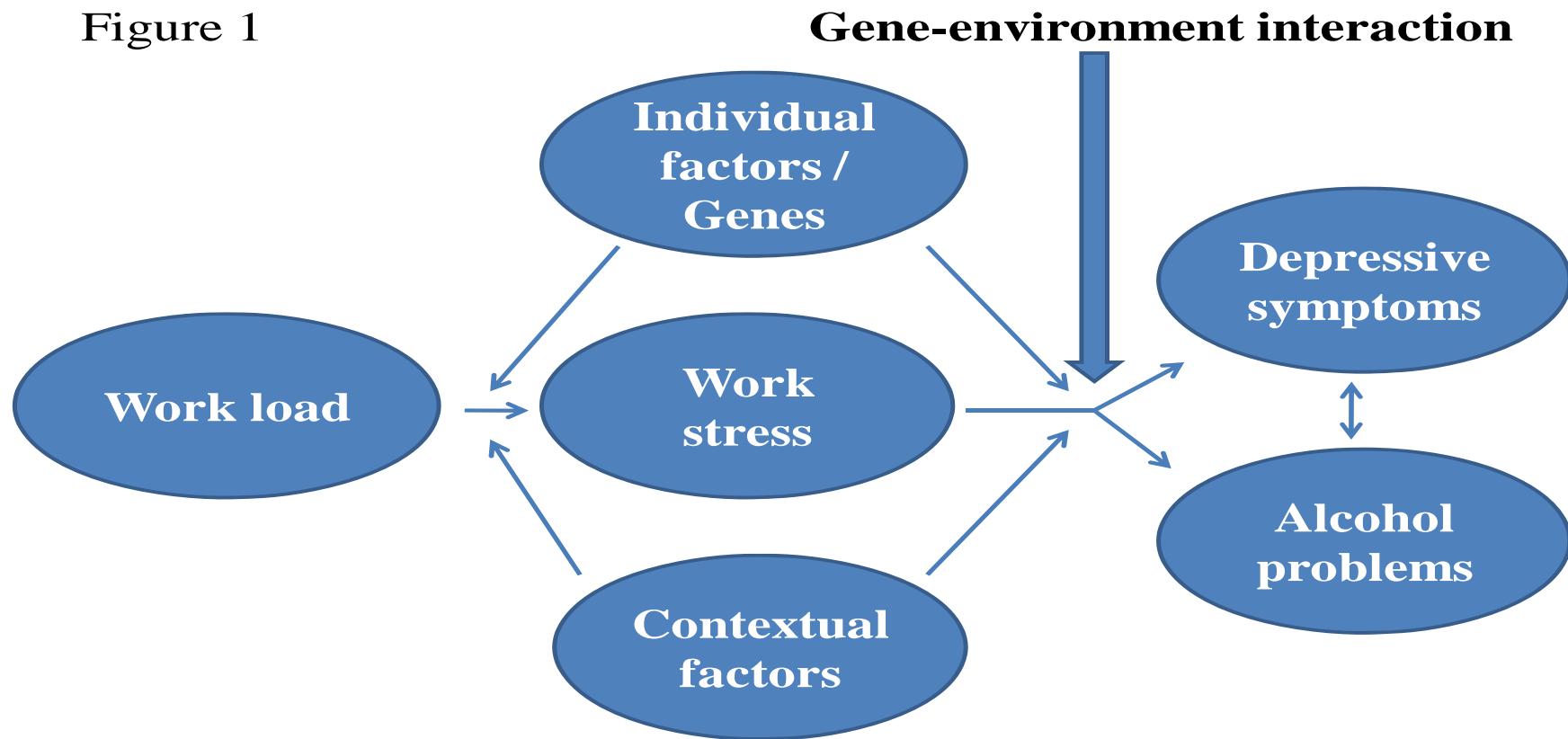
UGY= Undergraduate year

PGY = Postgraduate year



New NORDOC project: Alcohol, depression, and gene-environment interaction in the 20-year follow-up

Figure 1

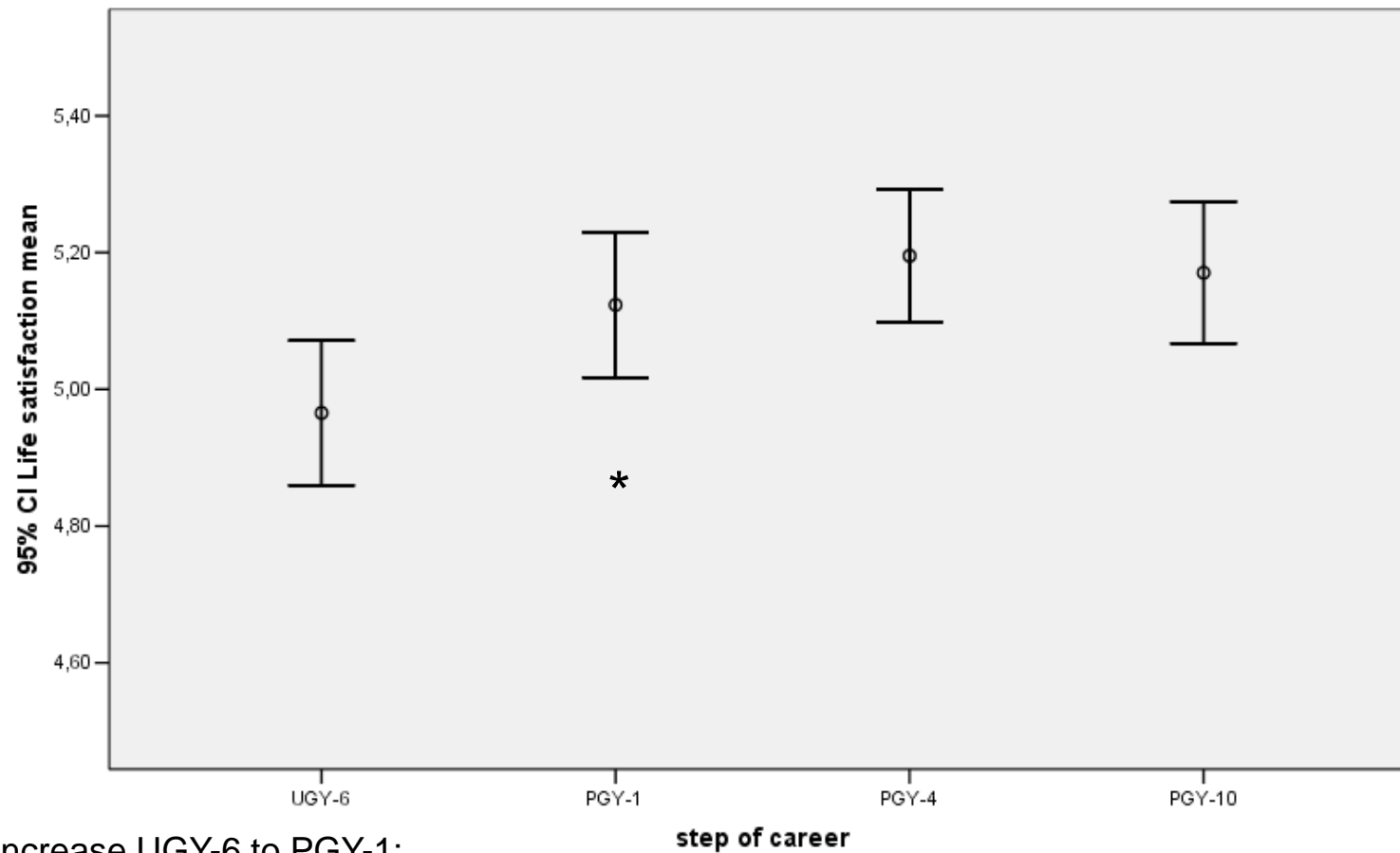


Course of Life Satisfaction in Medical Student Cohort



(Kjeldstadli et al 2006)

Course of Life Satisfaction in Norwegian Young Doctor Cohort



* Sign. increase UGY-6 to PGY-1:

Repeated measures: time X conscientiousness
(beta = -0.09, p= 0.009)

(Tyssen et al 2009)

Mental health treatment needs

- Life-time prevalence at entrance : 15%
- Prevalence during first three years : 31%
OR = 2.5 ($p < 0.001$)
- ***Perceived medical school stress*** predicts mental health treatment needs
 - In medical school (Midtgaard et al 2008)
 - Four years after graduation (Tyssen et al 2001)



PERSONALITY

Giant three / Big five personality traits

- Neuroticism
- Extraversion
- Conscientiousness
- Openness
- Agreeableness

} The
“Giant
three”
(Eysenck)

} The
Big
five
(Costa,
McCrae)

Personality trait dimensions as predictors of Perceived medical school stress (PMSS)

	Unadjusted analyses	Adjusted analysis
Age		
Female gender	*	
Extraversion		
Neuroticism	***	**
Conscientiousness	*	*

(Tyssen et al. 2007)



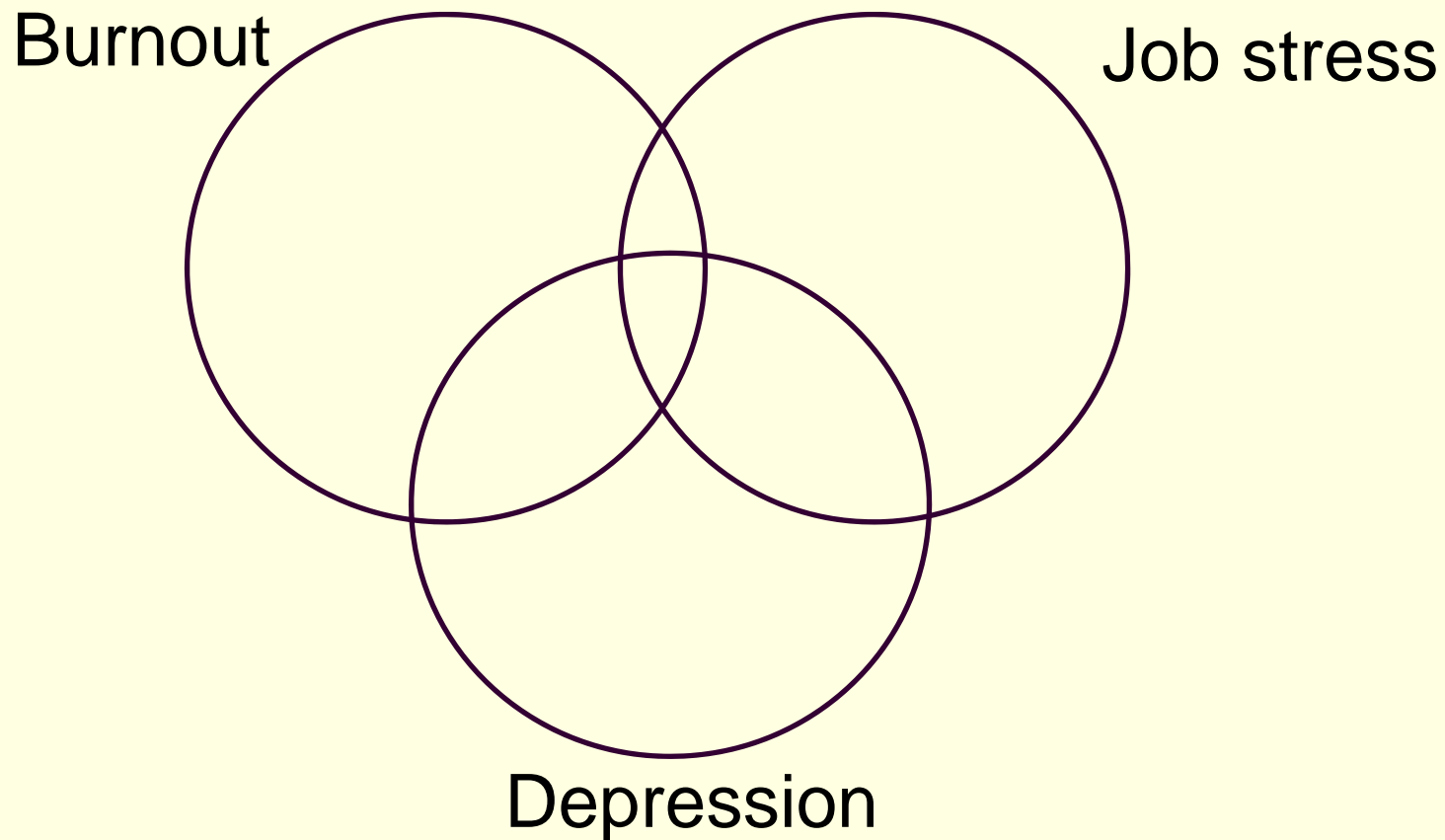
INTERVENTIONS



Intervention methods and samples

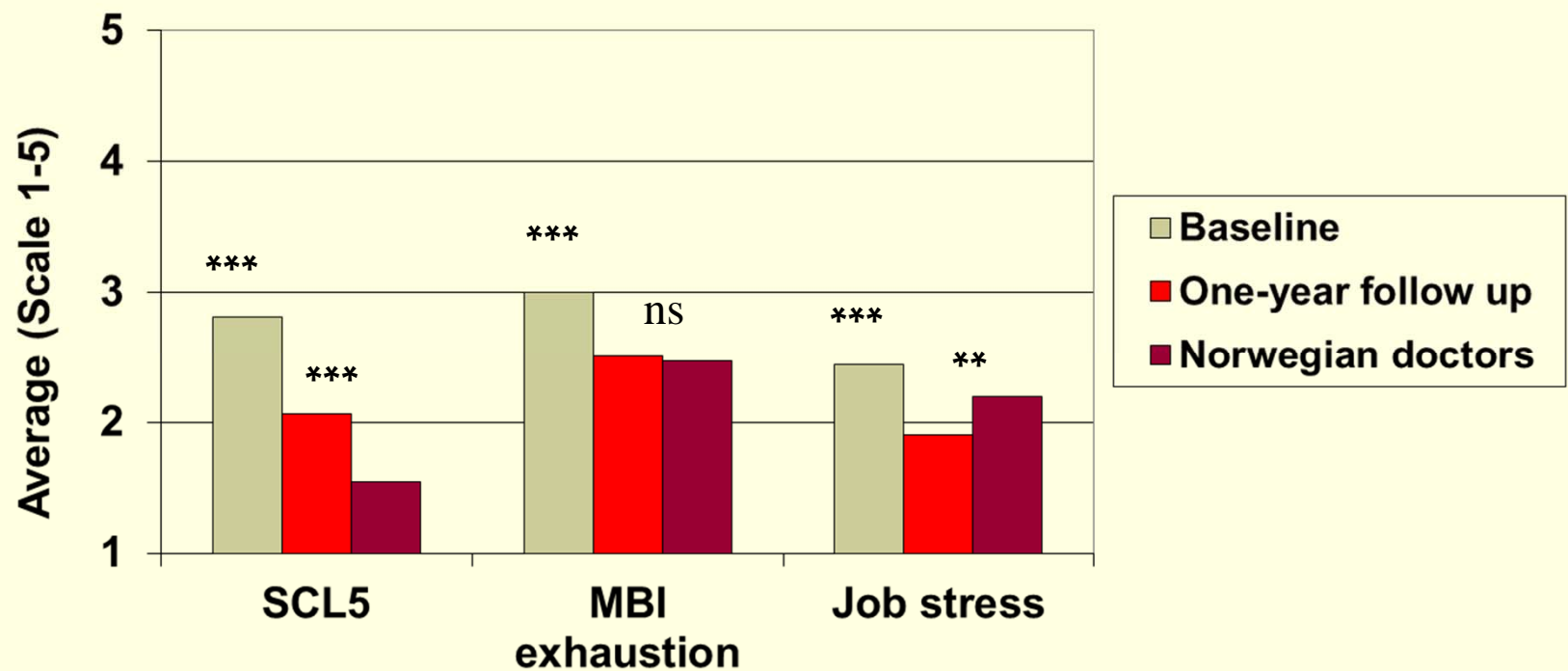
1. Counselling intervention among doctors seeking help for burnout (Villa Sana) N=227 (Isaksson Rø et al. 2008)
2. Controlled group intervention in medical students (Bergen) N=129 (Holm et al 2010)
3. RCT of mindfulness training in medical and psychology students (Oslo and Tromsø) N=288 (144 interv + 144 controls) (de Vibe et al 2013)

Three basic concepts: related but also different



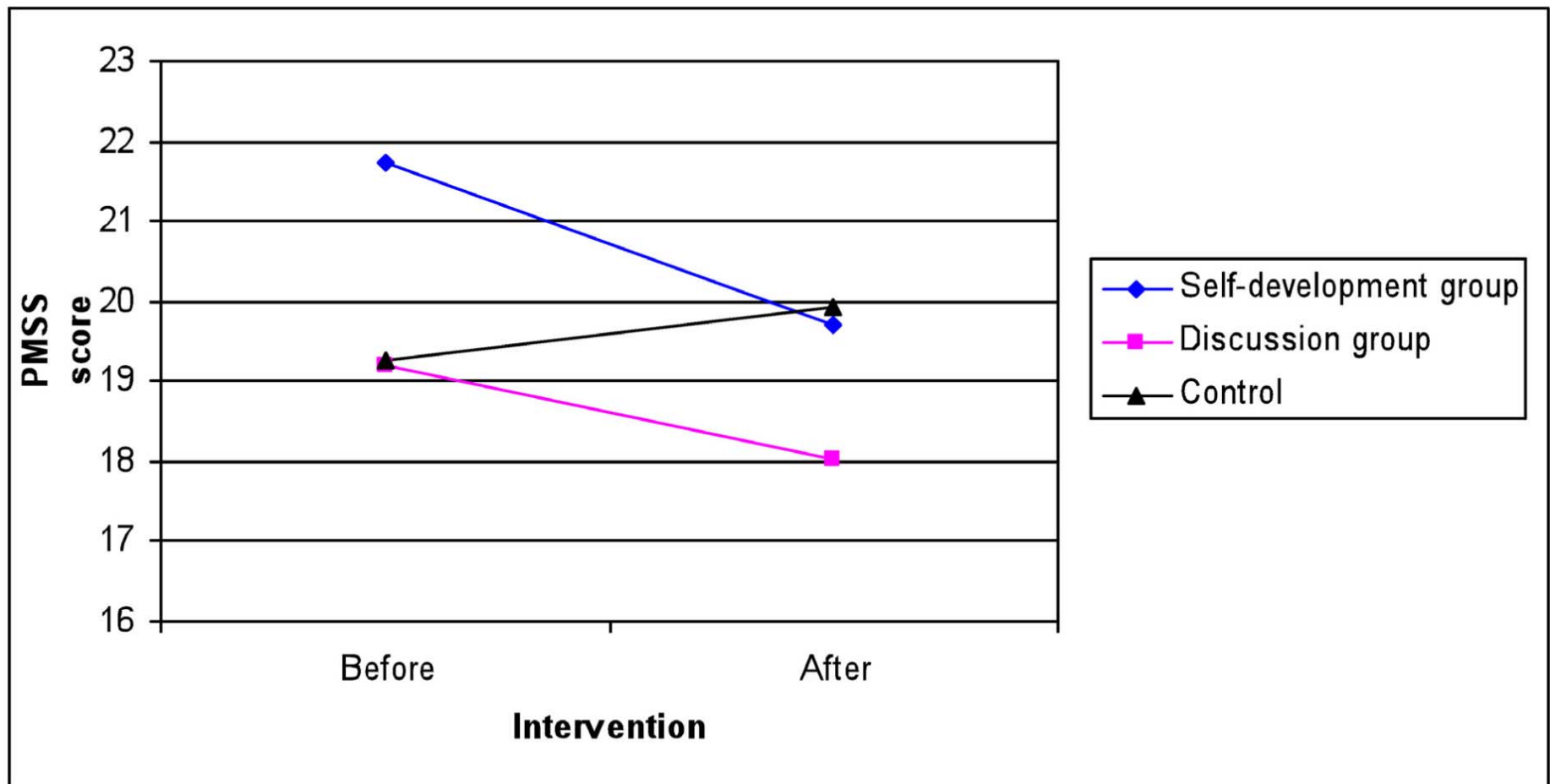
Baseline and one-year follow-up of Villa Sana doctors in comparison with Norwegian doctors (NORDOC)

(Low-threshold counselling intervention)



(Isaksson Rø et al. BMJ 2008)

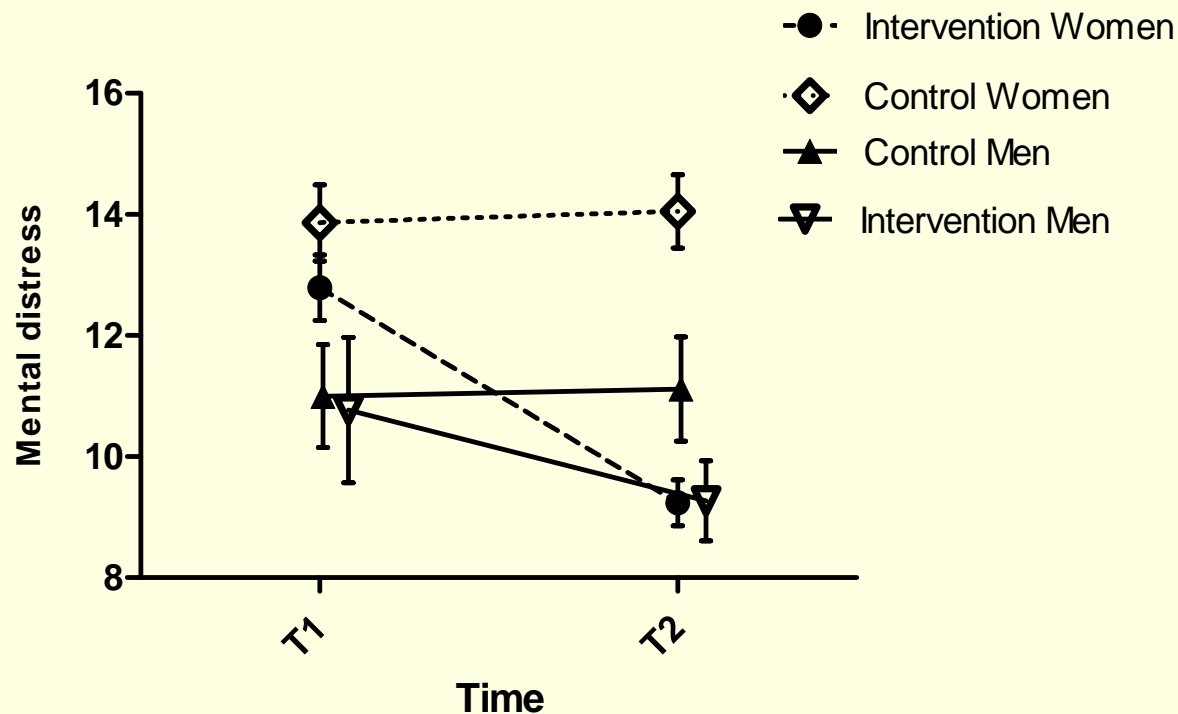
Self-development groups reduce medical school stress: a controlled intervention study



(Holm et al 2010)

RCT of mindfulness-based stress reduction in medical and psychology students (GHQ-12)

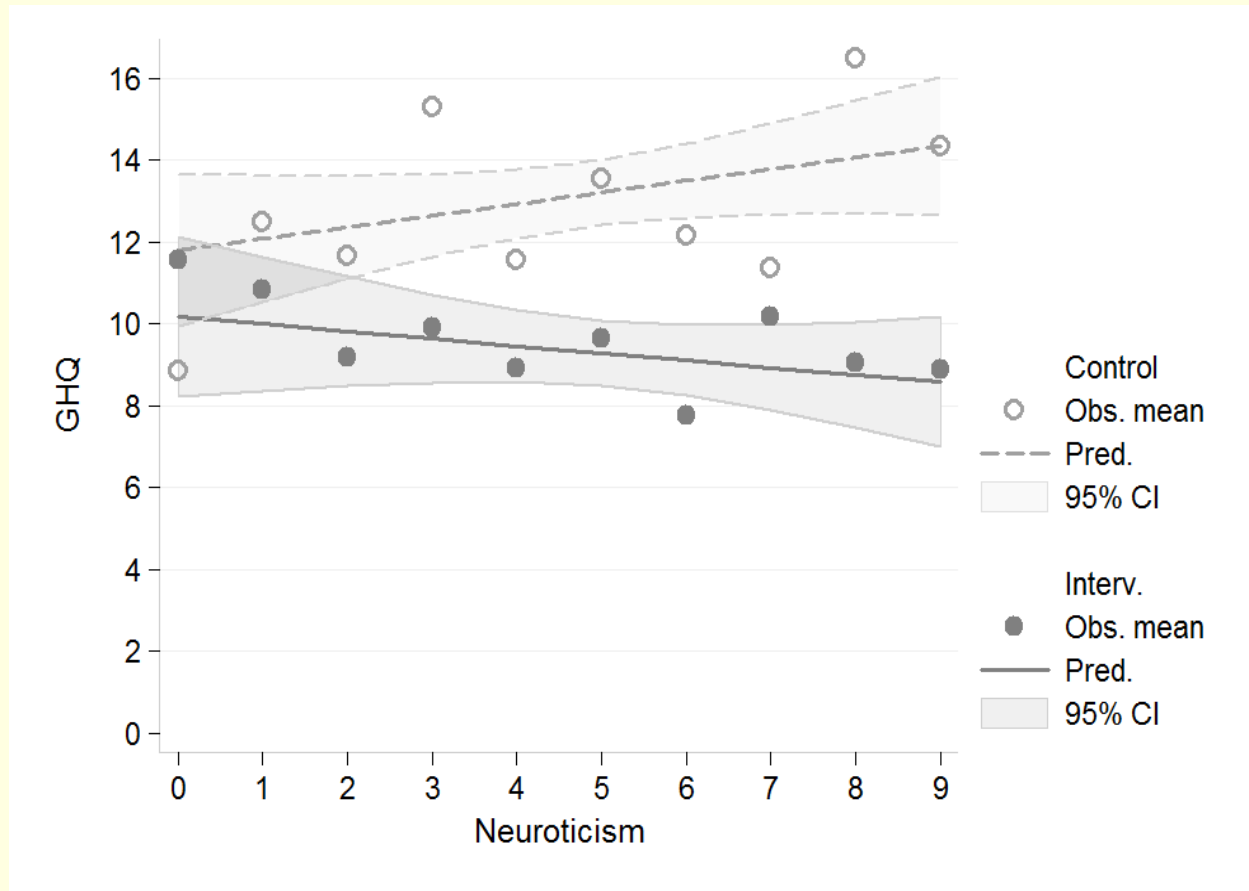
Figure 2 a)



Women $g = 0.72$ (95% CI .45, .99), $p < .001$
Men $g = 0.33$ (95% CI -.16, .82), $p = .136$

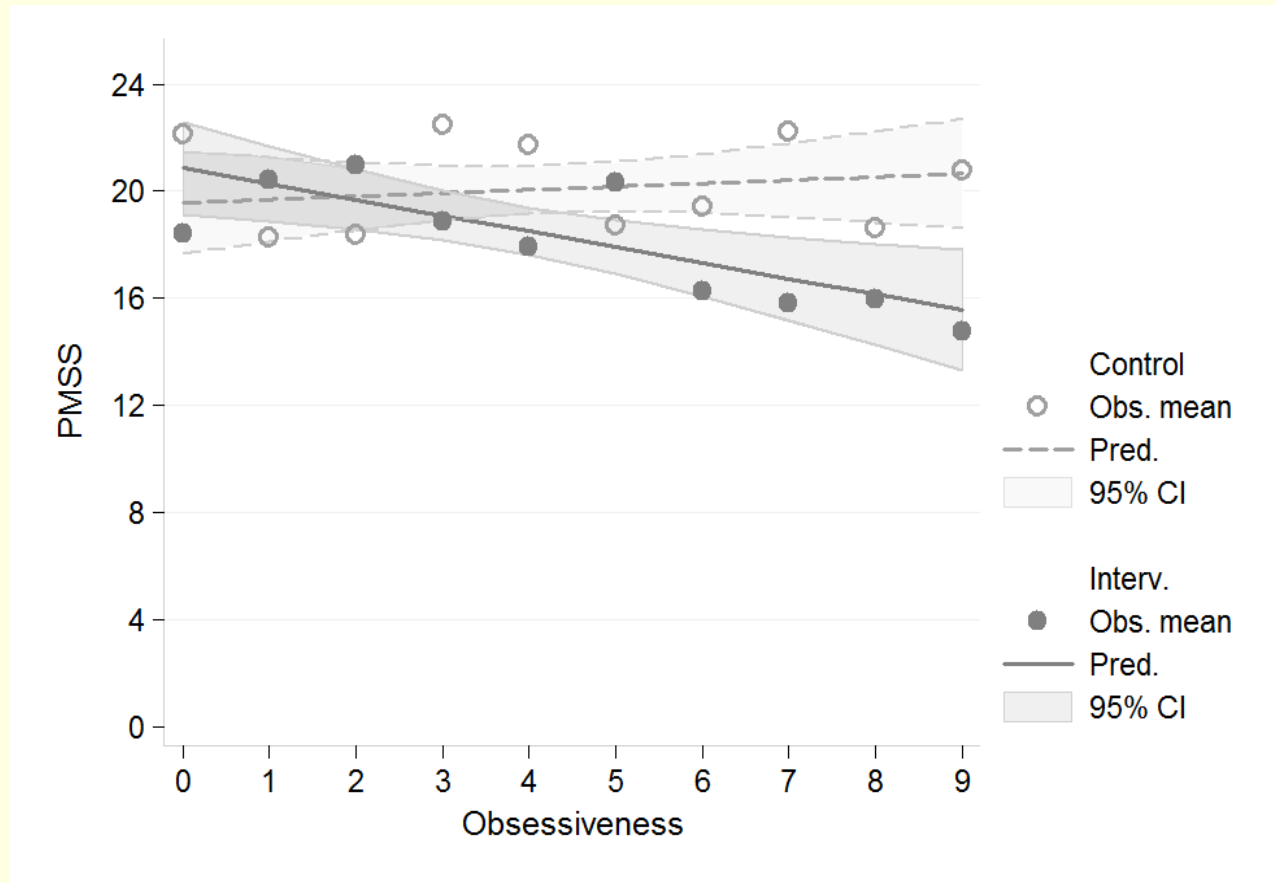
(De Vibe et al BMC Med Educ 2013)

Effect Moderation by Neuroticism



(de Vibe et al. Mindfulness 2013)

Effect Moderation by Conscientiousness(Obsessiveness)



(de Vibe et al. Mindfulness 2013)

Psychological mechanisms: Altered ways of coping?

- Compared to the control group, the intervention group increased levels of problem-focused coping
- Those with higher levels of neuroticism:
 - Reduced avoidance coping
 - Increased social-support coping

(Halland et al College Student Journal 2015: In press)

Conclusions

- Stress/distress is most prominent early in the career (medical school)
- Neuroticism and conscientiousness traits are important predictors of stress/distress
- Interventions should always be tailored for the expected outcome
- Both individual and group interventions may be effective
- Effects are moderated by personality traits, and they improve ways of coping: important psychological mechanisms?

Thank you for your attention!

