

BIOLOGY OF THE PERIMENOPAUSE: IMPACT ON HEALTH AND AGING WORKSHOP

Cognition, Mood, and Brain Function

Participants:

Pauline Maki (University of Illinois at Chicago)

John H. Morrison, PhD (Mount Sinai School of Medicine)

Susanna J. Park, MD (New Jersey Medical School)

Susan M. Resnick, PhD (National Institute on Aging)

Peter J. Schmidt, MD (National Institute of Mental Health)

Barbara B. Sherwin, PhD (McGill University)

C. Dominique Toran-Allerand, MD, ScD hc (Columbia University)

Subjective Cognitive Complaints and Menopausal Stage

SWAN¹ (n = 16,065)

“forgetfulness” on menopausal symptom inventory

pre (31%) < early (44%) = late (44%) = post (42%)

SMWHS^{2,3} (n = 205, 230)

- ◆ No effect except “declines in current memory compared to past” on Memory Functioning Questionnaire²
early, middle > late transition = postmenopause
- ◆ Current memory inversely related w/ health problems, depression²
- ◆ Undesirable change in memory in 62%³; most frequent complaints difficulty recalling words/numbers (56%), everyday behavior (33%)
- ◆ Attributed changes to health, age, stress, not hormones³

¹ Gold et al. *American Journal of Epidemiology*, 152, 463-73, 2000. ² Woods et al. *Menopause*, 7, 257-65, 2000. ³ Mitchell and Woods. *J. Women's Health Gender-Based Med*, 10, 351-362, 2001.

Objective Cognitive Test Performance and Menopausal Phase

SWAN ¹ (n = 868)

Longitudinal study at Chicago site with Digit Symbol Substitution and Digit Span Backward

pre = early = late = post

MMWHS ² (n = 326)

Cross-sectional study of 10-word verbal memory test

pre = early = late = post

Kinmen Women's Health Study ³ (n = 1270)

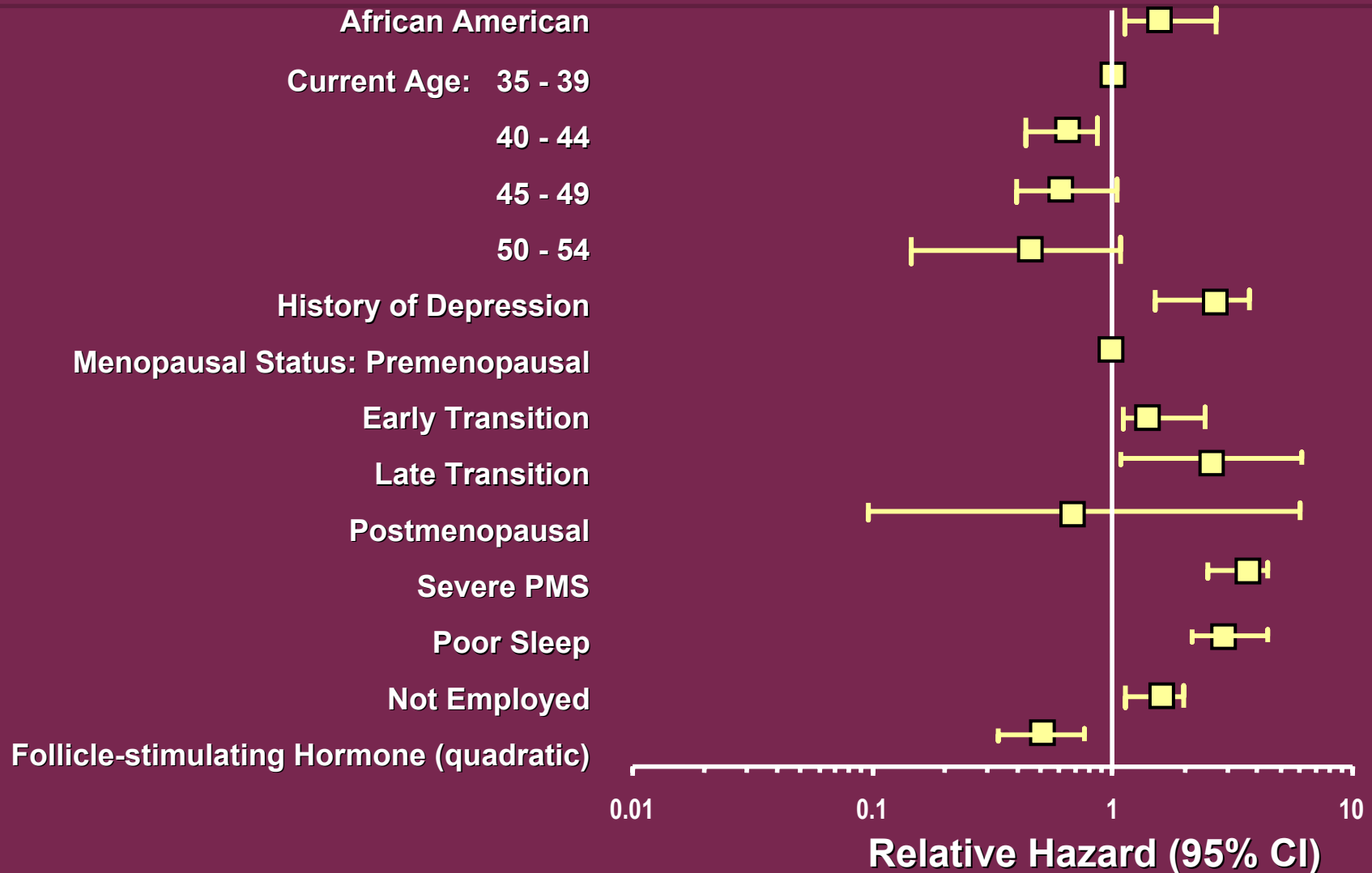
Cross-sectional study of complete neuropsychological test battery

Most tests, including, verbal memory, attention: pre = peri = post

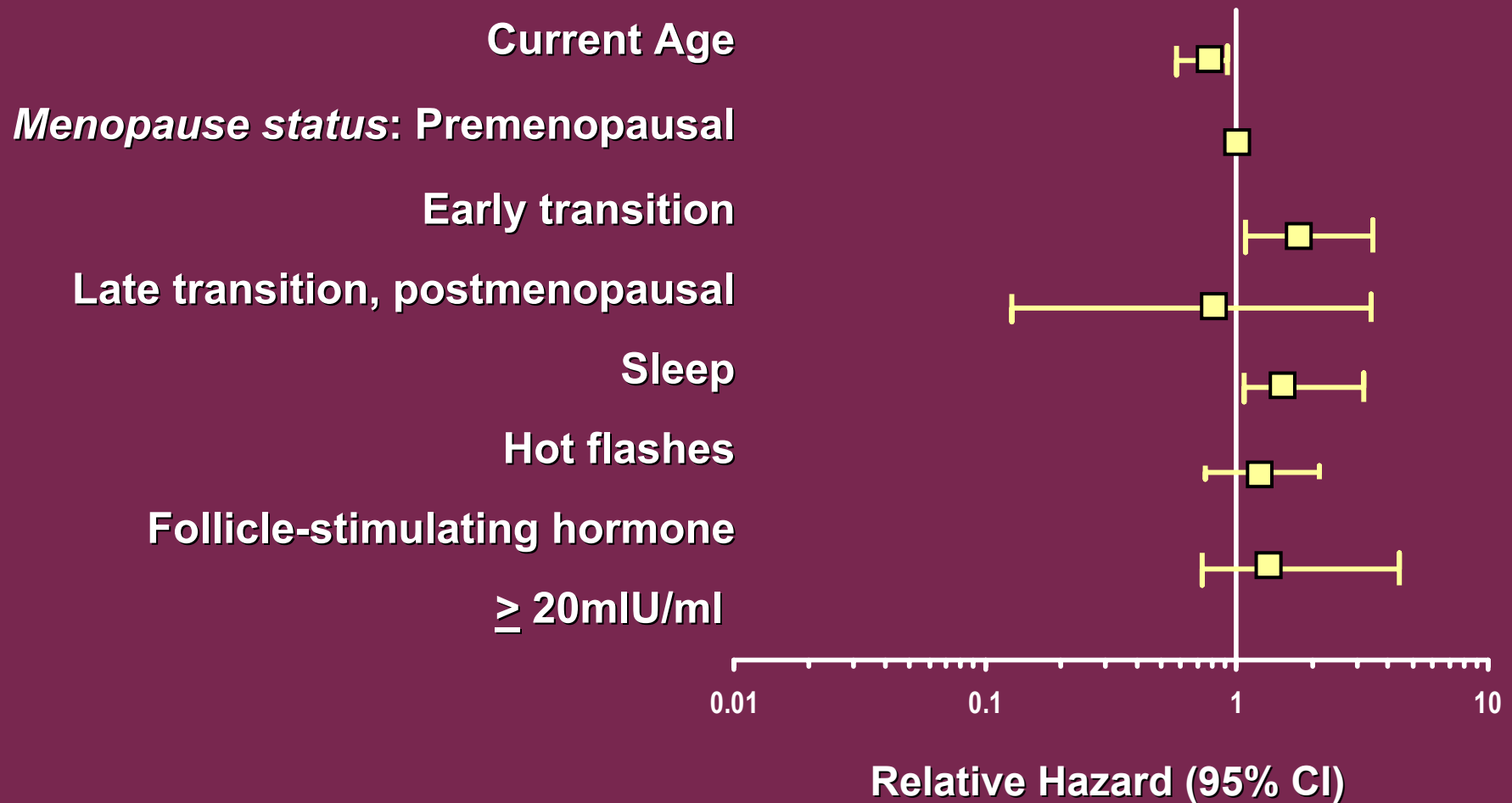
Trail Making Test Part B: pre = peri < post

¹ Meyer et al. *Neurology*, 61, 801-806. ² Henderson et al. *Neurology*, 60, 169-71, 2003. ³ Fuh et al. *JAGS*, 51, 431-2, 2003.

Factors associated with increased depressive symptoms in midlife women (n = 536)

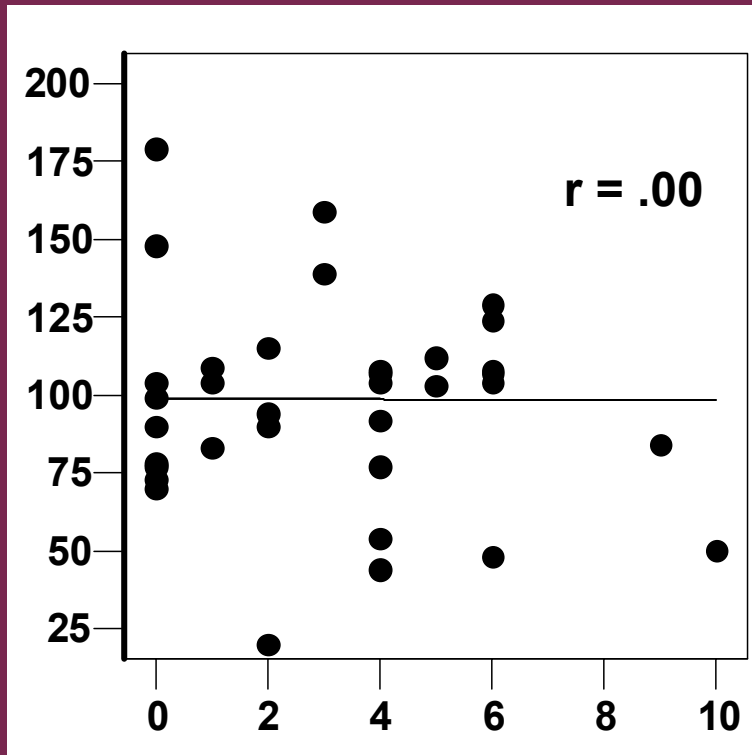


Factors associated with increased depressive symptoms in midlife women with no history of depression (n = 152)



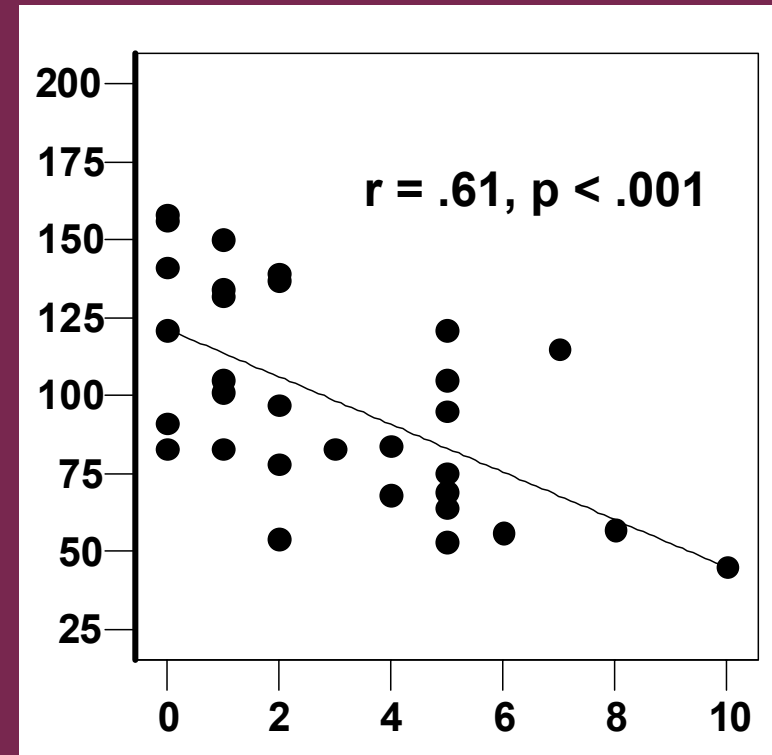
The relationship between mood and visuospatial ability depends on menopausal stage*

Premenopausal



Mood Score
(Mean = 3.3, SD 2.8)

Perimenopausal



Mood Score
(Mean = 2.9, SD = 2.6)

* $F(1, 59) = 6.75, p = .01$ for group x mood interaction.