

Allostatic Load and Subjective Disease Risk Predicts Perceived Environmental Control

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Abstract

The development of our cognition, perceptual abilities, and fears are pervasive throughout our lifespan. Embodied chronic stress, known as allostatic load, may be such a factor that adversely impacts aging across our development. Perceived control over our environment is influenced by chronic stressors, as certain psychosocial facets of allostatic load have been found to impact these very environmental affordances. This study examines the relationship between subjective feelings of age, subjective disease risk, chronic condition status, facets of allostatic load, and perceived environmental control and mastery. The present study has utilized the third wave of the MIDUS data collection project and the collected measures of chronological and subjective age, subjective cancer and heart attack risk, and perceived control. The study found that an older subjective age significantly predicted variability in perceived control, above that of subjective disease risk and the number of chronic conditions.

Methods

- The present study utilized data from the third wave of the Midlife in the United States data collection project, which surveyed individuals about facets of life quality and health.
- This study primarily examines feelings of subjective age and their impact on perceived control. Subjective feelings of age are best described as our perception of our internal age that are regardless of our chronological age. An individual's self-reported age may be lower or higher than their chronological age and this effect may not be fixed across the lifespan.

Procedure

- Descriptive statistics and an initial correlation matrix was run to examine the relationships among selected variables.
- An iterative stepwise regression model was run which estimated the effect of the number of chronic conditions, subjective heart attack and cancer risk, and the subjective age conditions of feels older, feels younger, and feels the same as chronological age.

Results

Table 2

Stepwise Multiple Regression between Perceived Control, Number of Chronic Conditions, Age Conditions, and Subjective Cancer and Heart Attack Risk

Perceived Control	Beta
Model 1	
Number of Chronic Conditions	-.10***
Model 2	
Number of Chronic Conditions	-.10***
Subjective Cancer Risk	-.08***
Subjective Heart Attack Risk	-.04
Model 3	
Number of Chronic Conditions	-.09***
Subjective Cancer Risk	-.07***
Subjective Heart Attack Risk	-.02
Feels Older	-.51***
Feels Younger	
Feels Same	-.13
Change in R^2 – Step 1	.09***
Change in R^2 – Step 2	.02***
Change in R^2 – Step 3	.02***

* $p < .05$, ** $p < .01$, *** $p < .001$

Note – Change in R^2 – Step 2 is .015 and change in R^2 – Step 3 is .022. Both changes are significant to the $<.001$ level. Comparator is Feels Younger.

- The results of the regression found that subjective age, specifically those that felt older than their chronological age, explained more variance in perceived environmental capabilities than that of chronic condition status and subjective disease risk.
- Those that felt older than their actual age accounted for the most variance in perceived control, indicating that individuals with a higher subjective age had lower perceived control in their daily life.

Conclusion

- This study found that among participants in the third wave of the MIDUS study, feeling older than your chronological age was a significant predictor of perceived control over and above the number of chronic conditions possessed by participants and subjective disease risk conditions.
- Among mounting evidence that ageist beliefs and policies have a deleterious impact on perceptions of the aging experience and overall quality of life; these results indicate that there should be a greater emphasis placed on preserving individuals' feelings of subjective age as it may mitigate negative effects such as lower quality of life, frailty, and hospitalization and rehospitalization risk (Hess et al., 2017).

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References

- Hess, T. M., O'Brien, E. L., Voss, P., Kornadt, A. E., Rothermund, K., Fung, H. H., & Popham, L. E. (2017). Context influences on the relationship between views of aging and subjective age: The moderating role of culture and domain of functioning. *Psychology and Aging, 32*(5), 419.