Medical illness burden and self-rated health in relation to older adults’ everyday problem solving

J. Kubik & W. J. L. Thornton
Department of Psychology, Simon Fraser University, Burnaby, BC, Canada

INTRODUCTION

• Performance on measures of everyday problem solving (EPS) accounts for unique variance in real-world outcomes above and beyond traditional measures of cognition.
• E.g., mortality, quality of life, and everyday functioning7,8.
• Older adults show reliable declines in EPS measures6.
• Higher medical illness burden (i.e., total number of self-reported doctor’s diagnoses) and self-rated health (SRH) are significant predictors of lowered EPS performance9.

RESEARCH QUESTIONS

1. Does a particular class of illnesses leave individuals more susceptible to age-related declines in EPS?
   • General illness burden (regardless of the type of diagnosis) accounts for variability in EPS performance5.
   • Vascular illnesses negatively impact cognitive abilities such as executive functioning6 and are related to declines in EPS9.

   Our first aim was to examine the differential impact of general, non-vascular, and vascular illness burden on EPS performance.

2. Does a specific aspect of SRH (mental or physical) better account for variance in EPS performance?
   • Global ratings of SRH (e.g., “how would you rate your health?”) predict EPS performance4.
   • Physical limitations are the most salient subjective measure of health3.
   • Using a global rating of SRH it is not possible to separate the predictive utility of the physical component of SRH from the mental component.

   Our second aim was to determine whether self-rated physical functioning (SRPF) or self-rated mental health (SRMH) better predicts EPS performance.

MEASURES

Demographics and Health
• Health information (self-reported physicians diagnosis and medication prescribed) was used to determine the presence/absence of the chronic illnesses of interest.

Everyday Problem Solving Measure
• 16 paper and pencil vignettes of problems frequently encountered in real life8.
• Participants were asked to generate as many solutions to the problem presented.
• The final score accounted for the quantity as well as quality of an individual’s generated solutions.

Self-rated Health
• Short Form-36 was used to assess self-rated health (SF-367).
• General Mental Health scale was used as a measure of self-reported psychological distress and psychological wellbeing.
• Physical Functioning scale was used in the current study as a summary of self-rated medical illness burden.

MEASURES

RESULTS

1. Illness Burden
   • Vascular illness burden was negatively associated with EPS performance.
   • General illness burden and non-vascular illness burden were unrelated to EPS performance.

   After covariates were statistically controlled for using hierarchical regression analysis, vascular illness burden was not a significant predictor of EPS performance.

2. Self-rated Health
   • Self-rated physical functioning was positively associated with EPS performance.
   • Self-rated mental health was unrelated to EPS performance.
   • Self-rated physical functioning remained a unique and significant predictor of EPS performance after covariates were statistically controlled for using hierarchical regression analysis (see Table 3).

CONCLUSIONS

• Regardless of the number or type of medical diagnoses, individuals’ subjective perception of their physical health is directly related to EPS performance.

• Results corroborate previous findings5 confirming that SRH provides unique information regarding older adults’ ability to solve everyday problems.

• Additionally, the current findings extend previous research by narrowing the focus to the importance of SRPF.

• Specifically, the extent to which older, community dwelling adults feel limited by their physical condition provides information regarding their real-world problem solving.

REFERENCES


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