

## Examining Social Factors in Self-management for Older Adults Living Alone

Older adults living alone are a rapidly increasing and often vulnerable segment of the population. Patient activation is an established predictor of self-management engagement, ability, and behaviors, and may be impacted by many factors, including social factors such as loneliness, social isolation, and neighborhood conditions. Relationships between these social factors and patient activation are unclear, particularly during a pandemic. Using the Individual and Family Self-Management Theory, the purpose of this cross-sectional study was to examine the factor structure and bivariate correlations of loneliness, social isolation, neighborhood conditions and to test the effect of these factors on patient activation using self-efficacy as a mediator. Adults aged 55 years and older living alone in the United States for a minimum of three months were recruited to participate in an online survey using established self-report instruments and pandemic-related questions. Surveys were distributed online via Amazon Mechanical Turk, Facebook, and email which resulted in 117 participants. Using confirmatory factor analysis, 12 latent factors were created from the survey items representing the factors of social isolation from friends, social isolation from family, emotional loneliness, social loneliness, neighborhood aesthetics, safety, violence, walking environment and cohesion. Bivariate correlations between latent factors demonstrated relationships between patient activation and all the other factors ( $p < 0.05$ ) with the exception of pandemic-related fear and social isolation from friends. Results of mediation analysis using Structural Equation Modeling identified a direct effect of self-efficacy on patient activation and indirect effects of emotional loneliness and neighborhood cohesion on patient activation via self-efficacy. These findings highlight the importance of social context factors for older adults living alone and point to self-efficacy as an important link between social factors and patient activation.