Concurrent and Long-Term Stress-Buffering Effects of Social Integration in Later Life

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Introduction
• Stress is linked to poor physical health (Cohen & Wills, 1985)
• Social relationships are protective factors for physical health (e.g., Kawachi & Berkman, 2001;Thoits, 2011)
• Direct protective effects
• Stress-buffering effects (Cohen & Wills, 1985)

Objectives
• To investigate stress-buffering effects of social integration on physical health in later life
• To determine whether those protective effects, if any, persist over time and prevent increasing health problems

Methods – Data
Social Integration and Aging Study (Fulier-Iglesias & Rajbhandari, 2016):
Design:
• Longitudinal survey study: W1 (2013) and W2 (2015)
• Consisted of written questionnaire to assess social integration, health and well-being, demographics, etc.
• 60 or older (at W1) in the Fargo-Moorhead area
Sample for the present study: N = 301
Those who completed related measures at both waves
• Age at W1: M=79.5 (SD=8.0)
• Female: 74%
• Years of education at W1: M=13.2 (SD=2.3)
• Marital status at W1: 39% married or living with partner

Methods – Measures
• W1 demographic covariates: age, sex, education, marital status
• W1 stress (predictor): Perceived Stress Scale (Cohen, Karuick, & Mermeinstein, 1985) – short 4-item version, 5-point Likert (‘never’ to ‘always’)
• W1 social integration (moderator): Social Integration in Later Life Scale (SILLS;Fuller-Iglesias & Rajbhandari, 2016); 4 subscales (social ties – frequency/satisfaction, social activities – frequency/satisfaction)
• Physical health outcomes:
  - DV1: W1 outcomes
  - DV2: W2 outcomes
  - DV3: Change in outcomes over two waves (W2 – W1)
  1. Chronic diseases: Count of 18 common chronic diseases
  2. Functional (Activities of Daily Living; ADL) limitations: 9 items for basic/instrumental ADLs; ‘without help’ (0), ‘with some help’ (1), or ‘someone must do this for me’ (2); summed score

Results
Main analysis: Table 1. Results (standardized regression weights) for multiple regression models for physical health outcomes controlling for demographic covariates

Data Analyses
Main analysis: 3 sets of multiple regression analyses for each health outcome:
1. Concurrent effects (W1 stress predicting W1 health outcome)
2. Long-term effects (W1 stress predicting W2 health outcome)
3. Effects for change (W1 stress predicting change in health outcome from W1 to W2)
* Each set of analyses included:
  A) Main effect models (with covariates, predictor, and moderator)
  B) Interaction models (with covariates, predictor, moderator, and interaction between predictor and moderator)

Post-hoc analysis: analysis for significant interactions of predictor (i.e., W1 stress) and moderator (i.e., W1 SILLS); analyzing regression lines for two groups with low and high levels of SILLS (median-split)

Future Directions
• Need to examine potential mechanisms of social integration affecting the long-term and longitudinal links between stress and ADL limitations (but not between stress and chronic diseases)
• To demonstrate the protective effects of social integration, need to investigate whether interventions of facilitating social integration could enhance late-life physical health or physical functioning over time.
• Limitation: non-representativeness of the general aging population in terms of racial diversity (which reflected the community population) – Need to replicate the study with a larger, more racially diverse sample

Conclusions
Stress-buffering effects of social integration:
• Outcomes – ADL limitations:
  • No concurrent buffering effects
  • Significant long-term effects and effects on longitudinal change: whereas W1 stress was associated with the outcomes (at W2 or over time) for those with low social integration, W1 stress did not predict the outcomes for those with high social integration
  • Outcomes – chronic diseases: no effects

Selected Literature Cited