PATTERNS OF COGNITIVE CHANGE IN INDUCTIVE REASONING ABILITY IN OLDER ADULTS: SEATTLE LONGITUDINAL STUDY

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Nagin Mixture Modeling was used to investigate the various trajectories of inductive reasoning ability over a 14-year period in three samples of adults aged 57 and older in the Seattle Longitudinal Study (SLS): Nontrained (N=149), Reason Training group (N=102), and Space Training group (N=111). The most appropriate polynomial order trajectories were fit for each group present in the three samples. Results indicated that 5 distinct trajectories were present in the nontrained group (BIC = -2627.40). Four different trajectories were present in the reason training group (BIC = -1817.41), and 5 distinctive trajectories were present in the space training group (BIC = -1844.47). Four latent factor covariates, cognitive reserve, cognitive style, health behaviors, and chronic diseases, were investigated to determine the differentiating variables amongst the trajectories. Investigation of the covariates revealed that in the nontrained and reason trained groups, cognitive style and cognitive reserve had predictive effects on trajectory group membership. For the space training group, cognitive style and chronic diseases had predictive effects on trajectory group membership. In general, individuals whose trajectories exhibited higher mean levels and less decline tended to have higher scores on the cognitive reserve and cognitive style factors. This suggests that maintaining or engaging in cognitive stimulating activities in older adulthood can have a protective effect for the onset of cognitive decline in inductive reasoning ability.