### MODIFIABLE LIFESTYLE FACTORS ASSOCIATED WITH COGNITIVE RECOVERY FROM MCI: A 12-YEAR LONGITUDINAL STUDY

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Introduction: Many studies have investigated the risk factors associated with progression from mild cognitive impairment (MCI) to cognitive impairment, while it is unclear which lifestyle factors are associated with cognitive recovery among those who have mild cognitive impairment. Methods: The study includes 7,422 participants above 65 years old with MCI from The Chinese Longitudinal Healthy Longevity Survey (CLHLS). Cox regression analysis was adopted to investigate the association between cognitive recovery and selected lifestyle factors. LASSO was applied to select the variables. Results: Daily consumption of fresh fruits is associated with higher possibility of cognitive recovery (HR: 1.28, 95% CI: 1.15-1.42) while daily consumption of meat show opposite influence (HR: 0.90, 95% CI: 0.80-0.99). Smoking (HR: 0.99, 95% CI: 0.98-1.00) and alcohol consumption (HR: 1.00, 95% CI: 0.99-1.00) are both negatively associated with cognitive recovery. Daily engagement in reading (HR: 1.24, 95% CI: 1.00-1.54), housework (HR: 1.21, 95% CI: 1.08-1.35) as well as mahjong and other card games (HR: 1.23, 95% CI: 1.08-1.39) are associated with higher possibility of cognitive recovery. Conclusion: This study has identified important modifiable lifestyle factors associated with natural cognitive recovery from MCI. The findings have considerable implications for dementia prevention.

### MULTITASKING IN OLDER ADULTS' DAILY ACTIVITIES: A PRELIMINARY INVESTIGATION

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The ability to multitask, defined as conducting two or more activities simultaneously, is important in daily life. The majority of prior work has examined multitasking in laboratory settings. However, less is known about how multitasking in daily activities is related to older adults' executive functioning and perceptions of aging. The current study investigated these relationships in a sample of 33 older adults aged 65-81 (M=70.0, SD=3.6). Participants were asked to describe activities they did each day and estimate time spent in each activity across fourteen days; multiple activities reported in the same time frame were considered multitasking. Executive function was measured at baseline using the Trail Making Test Part B (TMTB), with higher scores indicating worse performance. Expectations regarding aging were measured at baseline using the Expectations Regarding Aging (ERA-12) survey, with higher scores indicating more positive perceptions. Twenty-seven participants (81.82%) reported at least one instance of multitasking in the fourteen-day period. Participants were divided into three groups based on the median number of reported multitasks: no multitasking (n=6), low multitasking (≤4; n=15), and high multitasking (>4; n=12). Although there were no significant differences within the ANOVA, participants who reported low multitasking trended towards poorer executive function and more positive expectations of aging (M_TMTB=100.28, M_ERA=64.88) than both no multitasking (M_TMTB=82.12, M_ERA=50.46) and high multitasking groups (M_TMTB=94.90, M_ERA= 54.29). Additional research should investigate these possible relationships in larger samples and explore how covariates, such as gender and age, may moderate possible relationships.

### MUSICAL EXPERIENCE RELATES TO FUNCTIONAL CONNECTIVITY IN OLDER ADULTS

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Previous studies have shown that engaging in musical activities throughout the lifespan may buffer age-related decline in auditory and motor function, as well as in general cognitive function. MRI studies have demonstrated that individuals with musical training and experience exhibited greater grey matter volume and functional connectivity in extensive brain regions, especially in auditory and motor systems, compared to matched controls with no particular musical training or experience. Therefore, musical activity is a potential protective factor for brain health across lifespan. However, how lifespan musical experience shapes functional connectivity in older adults is still unknown. The current analysis investigated whether general musical experience (Goldsmith Music Sophistication Index) is associated with functional connectivity in older adults (age=65.7±4.4, n=69), focusing on seed regions in primary motor areas (bilateral precentral gyrus) and primary auditory regions (bilateral anterior/posterior superior temporal gyrus) and their functional connectivity towards other areas throughout the whole brain. We found that older adults with more musical experience showed greater functional connectivity between anterior superior temporal gyrus and insula (R2=0.10, p=0.01), and between posterior superior temporal gyrus and cerebellum (R2=0.08, p=0.02). However, musical experience and music-related functional connectivity was not significantly correlated with general cognitive functions in our sample. Overall, our findings suggest that older adults with more musical experience might be more efficient in some aspects of auditory processing and auditory-motor skills, but this may not transfer towards domain-general cognitive tests. Our results support the notion that even non-professional engagement in musical experiences may afford benefits to the aging brain.

### PERCEPTUAL VERSUS CONCEPTUAL VALUE-DIRECTED STRATEGIC PROCESSING IN YOUNGER AND OLDER ADULTS

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Value-directed strategic processing involves selectively attending to and processing information deemed more important while ignoring or inhibiting less important information. What