

# The Role of Occupational and Non-Occupational Activities in Promoting Cognitive Health in Ageing Populations

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### Abstract

Malaysia is undergoing a demographic transformation, with its elderly population set to rise significantly. As the nation ages, preserving cognitive health among older adults will be critical for individual wellbeing and societal stability. While policies like *Dasar Kesihatan Warga Emas Negara* promote active ageing, they neglect the crucial role of occupational and non-occupational activities in maintaining cognitive function. This study, based on the Malaysian Ageing and Retirement Survey (MARS), highlights that cognitive decline is inevitable but influenced by behaviors and opportunities. Engaging in cognitively demanding work, especially roles involving problem-solving and social interaction, fosters cognitive resilience. However, jobs requiring physical strain or advanced technologies may not benefit older workers. Non-occupational activities like volunteering, social interactions and moderate exercise also enhance cognitive reserve, improving quality of life regardless of work history. To leverage these insights, policy must act. Promoting cognitively stimulating work through flexible arrangements, retraining, and employer incentives can keep older adults economically active and mentally keen. Supporting informal workers and caregivers with safety nets and protections is equally vital. Investing in cognitive health through engagement and comprehensive support will enable Malaysia to transform its ageing challenge into opportunities for progress.

### Introduction

Malaysia is undergoing a significant demographic shift, with its elderly population growing rapidly. In 2023, individuals aged 65 and above made up 7.4% of the population, projected to reach 15% by 2030 and 24% by 2050 (DOSM, 2023, 2016). This trend poses challenges in economic sustainability, healthcare and the wellbeing of older adults.

Cognitive decline, a common aspect of ageing, affects decision-making, memory and quality of life. It can exacerbate physical health issues like mobility limitations, falls, depression and frailty, creating a cycle of decline (Zaninotto et al., 2018; Rodakowski et al., 2015; Mortby et al., 2017). Evidence suggests cognitively stimulating activities, both occupational and non-occupational, may slow cognitive decline.

This study analyses data from Malaysia Ageing and Retirement Survey (MARS). MARS collects

longitudinal data on cognition, health, employment, income and social factors. Cognitive functioning was assessed using episodic memory, numeracy and semantic fluency tests. Occupational and leisure activities, physical exercise, and social engagement were evaluated for their impact on cognitive health. Control variables like sex, origin, wealth and health status were included to account for demographic and socioeconomic influences.

### Data Description

The data for this policy brief involves 2,386 individuals aged 60 and above using the MARS data. MARS is a longitudinal data collected by the Social Wellbeing Research Centre (SWRC) based on a random sample of individuals aged 40 years stratified by urban and rural enumeration blocks. The data contains information on cognition, health status, physical activities, employment, income and expenditure, savings and assets, and background information.

### Methodology

The study evaluated cognitive functioning through tests assessing orientation, episodic memory, executive functioning and numeracy. The main assessments were the word list recall task, which tests episodic memory, numeracy, and semantic fluency task, which measures executive functioning and other cognitive processes. Participants were asked to memorize and recall a list of ten common words, with immediate and delayed recall phases (respondents scored 0-10). The numeracy test involved three basic arithmetic calculations (scored 0-4) and the semantic fluency task involved listing as many different animals as possible (scored 0-61).

Occupational activity was measured by current employment status, while leisure activities like volunteering, sports and social clubs were considered for potential cognitive benefits. Physical activities, including moderate and vigorous exercises, were analyzed for their impact on cognitive health. Limitations on mobility were considered, as physical constraints can affect physical activity levels and social interactions. Social isolation, indicated by living in a single-person household, was examined for potential negative effects on mental health and cognitive function. Control variables such as sex, origin, wealth and health status were incorporated to account for demographic and socioeconomic factors influencing cognitive ageing.

## Key Findings

One in five individuals aged 60 and above remain in the workforce, with occupational engagement linked to better cognitive performance, particularly in numeracy and semantic skills. Cognitively demanding jobs help maintain cognitive health, while physically stressful jobs may have the opposite effect, highlighting the importance of job demands on cognitive function. Leisure activities, such as volunteering or spending time with family, significantly enhance cognitive reserve, regardless of work or educational background. Physical and social activities, including moderate exercise, provide protective effects against cognitive decline, improving overall cognitive scores. Other factors also shape cognitive ageing. Chronic illnesses worsen cognitive performance, while higher education, income and marital status improve cognitive outcomes. Living alone appears to benefit memory but has limited effects on other cognitive measures, emphasizing the complex interplay of social and health factors in ageing.

## Policy Recommendations

The impact of occupational and non-occupational activities on cognitive function among older adults is an increasingly important area of research, particularly in the context of Malaysia, where demographic shifts are leading to a growing elderly population. Existing policies related to ageing, such as the National Policy for Older Persons, emphasise the importance of active ageing and the need for social support systems. However, these policies often lack specific strategies that address the cognitive aspects of ageing, particularly concerning occupational engagement and lifestyle choices. Current initiatives primarily focus on health care access and social welfare, neglecting the potential of occupational and non-occupational activities to enhance cognitive reserve and mitigate cognitive decline (Weng et al., 2018).

While there are programmes aimed at promoting physical activity among older adults, there is a significant gap in initiatives that encourage cognitive engagement through both work and leisure activities. For example, studies have shown that higher occupational complexity is associated with better cognitive outcomes in later life (Burzyńska et al., 2020), yet there are few policies that promote such occupational engagement among older adults, particularly those who may be underemployed or retired (Rodriguez et al., 2018).

Policies should be developed to encourage older adults to remain in or return to cognitively stimulating occupations. This could include incentives for employers to create flexible work environments that accommodate older workers, as well as training programmes that enhance skills relevant to modern job markets. Such initiatives could help maintain cognitive function and provide a sense of purpose,

which is crucial for mental health (Tianyi et al., 2019). Occupations involving problem-solving, learning new skills, and social interaction such as teaching, healthcare, and management help preserve cognitive function. However, the cognitive benefits are not universal across all professions. Not all types of occupations are suitable for older adults, particularly those involving physically demanding tasks or requiring proficiency in newly developed advanced technologies.

In Malaysia and many countries, policies often focus on formal workers, neglecting older informal workers who face exploitation, age-related discrimination, and health risks, worsened by limited social safety nets and healthcare access. Flexible work options such as part-time, job-sharing and remote work can help older informal workers stay engaged while addressing health and mobility challenges. Similarly, recognizing and supporting older informal caregivers through financial aid, training, and respite care is crucial. Valuing caregiving as a societal contribution can elevate its status and provide essential support.

## Conclusion

Activities promoting cognitive engagement in mid-life have long-term benefits, improving cognitive performance in older age. In Malaysia, cultural factors shape the leisure activities of older adults, highlighting the need for policies that address cognitive health alongside physical and social needs. While policies like *Dasar Kesihatan Warga Emas Negara* emphasise active ageing, they lack strategies to encourage cognitive engagement through work and leisure.

Policies should focus on promoting flexible work arrangements and skill development in cognitively stimulating roles while supporting older informal workers and caregivers. Addressing age-related challenges such as discrimination and limited social safety nets is crucial. By prioritising cognitive engagement alongside healthcare and social welfare, Malaysia can enhance the wellbeing and mental health of its ageing population.

## References

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