



Service Priorities and Programmes
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Associations of Cognitive Function with Feeding Performance and Swallowing Function in Elderly with Dementia

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Introduction

Feeding difficulty and dysphagia are common problems in cognitively impaired elderly with dementia. Malnutrition and aspiration pneumonia may result from feeding problem and swallowing dysfunction. However, limited studies had investigated the course of decline and interrelationship among cognitive function, feeding performance and swallowing function in dementia patients.

Objectives

1. To investigate the association between cognitive function and feeding performance in elderly with dementia
2. To investigate the association between cognitive function and severity of dysphagia in elderly with dementia

Methodology

This cross-sectional study recruited 215 Chinese participants from Speech Therapy Outpatient Clinic, Geriatric Day Hospital, Geriatrics Memory Clinic in Ruttonjee Hospital, and old aged homes covered by Community Geriatric Assessment Service (CGAS) from March 2014 to July 2014. The participants were over 65-year-old, with diagnosis of dementia and without history of other neurological diseases. Sociodemographic information of the participant was interviewed. Medical record was reviewed for the diagnosis of dementia and associated medical conditions. The Abbreviated Mental Test (AMT) was adopted to assess participants' cognitive function. The feeding performance was evaluated by the Chinese version of Edinburgh Feeding Evaluation in Dementia (EdFED) Scale. The swallowing function was assessed by the Gugging Swallowing Screen (GUSS) test and Therapy Outcome Measure (TOM) impairment scale.

Result

Significant negative correlation was demonstrated between AMT score with EdFED score ($\rho = -0.571$, $p < 0.001$). After adjustment of confounders, AMT score was an

independent predictor of EdFED score ($p=0.034$), with age ($p=0.016$) and functional status ($p=0.001$) being two additional independent factors.

AMT score manifested significant association with severity of dysphagia from the bivariate analysis of results from GUSS ($p<0.001$) and TOM ($p<0.001$). After adjustment of confounders, AMT score was not a significant independent predictor when swallowing function was assessed by GUSS, but it was an independent predictor when assessed by TOM ($p=0.004$). Age, functional status, male gender, living in OAH, taken care by children/family and maid were also independent factors of dysphagia.

Conclusion:

Cognitive function had significant associations with feeding performance and swallowing function in elderly with dementia. Upon declining cognitive impairment, early intervention and education on feeding problem and dysphagia should be performed to elderly with dementia and their caregivers. Further prospective studies were recommended to examine the associations between feeding performance and swallowing function, and other confounding factors.