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Factors Affecting the Health-Related Quality of Life - Physical Functioning of Patients with Sub-acute Stroke
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Introduction
Stroke is one of the leading causes of death and acquired disability in many countries, including Hong Kong. Stroke often leads to motor impairment which would affect patients' functional independence. It could cause a significant long-term impact on their quality of life.

Objectives
To evaluate the correlation of motor impairments and functional mobility with physical functioning scores of health-related quality of life (HRQOL) in patients with sub-acute stroke.

Methodology
Ninety-two patients with sub-acute stroke (mean age: 66 years; mean post-stroke duration: 60 days) referred to Geriatric Day Hospital of Shatin Hospital for rehabilitation were recruited. Short-Form Health Survey (SF-36v2, HK Edition) was performed to record their ratings in quality of life. Motor impairment was measured by the Fugl–Meyer Assessment - Upper Extremity (FMA-UE) scores and Berg Balance Scale (BBS), and functional mobility was measured by Modified Rivermead Mobility Index (MRMI). Multiple linear regression analysis was performed to identify the variables associated with HRQOL.

Result
Total 94% of the physical functioning score rated by our subjects with stroke was lower when compared with the General Population Sample Norm provided from the QualityMetric 2009. Physical functioning (one of the eight domains of SF-36v2) was

moderately correlated with BBS scores (r=0.590, p<0.001) and MRMI (r=0.628, p<0.01), while its correlation with age (r=-0.212, p<0.05), post stroke duration (r=-0.303, p<0.001) and FMA-UE scores (r=0.389, p<0.001) was fair only. The whole prediction model was statistically significant, $F_{(5, 86)}$ = 15.291, p <0.001, which accounted for approximately 44% of the variance of the domain score of physical functioning in SF-36v2 (R^2 = 0.471, Adjusted R^2 = 0.440).

The rating of physical functioning of HRQOL of our subjects with sub-acute stroke was lower when compared with those of General Population Sample Norm. Balance and functional mobility contributed significantly to the final predication model of physical functioning of HRQOL in patients with sub-acute stroke. Our findings supported that intervention with training on balance and functional mobility may help to promote better quality of life of patients with sub-acute stroke.