MORALE IN VERY OLD PEOPLE
with focus on stroke, depression and survival

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Akademisk avhandling

som med vederbörligt tillstånd av Rektor vid Umeå universitet för avläggande av medicine doktorsexamen framläggs till offentligt försvar i Sunderby sjukhus aula, Luleå, fredagen den 4 december, kl. 12:00. Avhandlingen kommer att försvaras på svenska.

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Abstract

Background: Morale is a multidimensional concept, often defined as a future-oriented optimism or pessimism regarding the problems and opportunities associated with ageing. Very old people, older than 80 years, constitute an age group that is expected to increase in Europe from 4.7% of the general population today to 12.0% in the year 2060 in Europe. The overall aim of this thesis was to explore morale among very old people.

Method: The Umeå 85+/GErontological Regional Database study (GERDA) is a population-based study carried out in parts of northern Sweden and western Finland in which every second 85 year old, every 90 year old and everyone aged 95 years and older were invited to participate. The study started the year 2000 and every five years re-invites previous participants and invites new individuals to participate in the study. The Philadelphia Geriatric Center Morale Scale (PGCMS), which is widely used to measure morale in old people, has been translated into many languages.

Results: There were 598 individuals who answered the PGCMS in the Umeå 85+/GERDA study. Despite respondents' advanced age 92.6% (554/598) answered 16 or 17 of the questions. The construct validity of the Swedish version of the PGCMS was tested among the 493 individuals who answered all 17 questions using confirmatory factor analysis and the analysis showed a generally a good fit. Reliability tested with Cronbach's alpha was 0.74. Reliability was also tested in a convenience sample of 59 individuals (mean age of 84.7±6.7 years) and the IntraClass Correlation coefficient (ICC) was 0.89.

Almost 20% (91/465) of participants who could answer the PGCMS had had a stroke. Those with stroke had significantly lower PGCMS scores than those without (10.9±3.8 vs 12.1±3.0, p-value 0.008), but there were 38.5% with stroke history who had high morale. A multiple linear regression analysis showed that depression, angina pectoris and impaired hearing were independently associated with low morale among those with a stroke history.

A logistic regression model showed that each point increase in PGCMS score lowered the risk of depressive disorders five years later (odds ratio 0.779, p<0.001, with each point increase in PGCMS). In a Cox model adjusted for several demographic, health- and function-related confounders, including age and gender, mortality was higher among participants with low morale (RR=1.36, p=0.032) than those with high morale. There was a similar but non-significant pattern towards increased mortality in participants with moderate morale compared to high morale (RR=1.21, p-value=0.136).

Conclusion: The feasibility and psychometric properties of the Swedish version of the PGCMS seems to be satisfactory among very old people. A large proportion of very old people have had a stroke, which is associated with reduced morale. Depression, angina pectoris and impaired hearing were independently associated with low morale among those with stroke. Among very old people, a higher level of morale seems to be associated with a lower risk of suffering from depressive disorders five years later. High morale is independently associated with increased five-year survival among very old people.

Keywords