

Frailty, function and quality of life in people living to advanced age

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Te Whare Wānanga o Tāmaki Makaurau



Physical condition and QOL

- The body changes with age - chronic disease
- Positive views of health despite declines in physical function
- Good health is associated with perceived well-being, morale and QOL
- QOL – Health related QOL



Ageing well

- Positive view
- Rowe and Kahn (1987, 1997, 1998)
 - Absence of disease, disability and risk factors
 - Maintenance of physical and mental functioning
 - Active engagement with life
- Baltes and Baltes (1980, 1990)
 - Selection, optimisation and compensation
- Lived experience
 - Social activities, interests and goals



Frailty

- Multiple domains, crosses physical, social, psychological aspects - Edmonton
- Frail populations often excluded from research



Living to advanced age study

- Feasibility study
- 112 people
- Rotorua, Whakatane, Opotiki
- Home- based questionnaire and assessments



Aim

1. To describe the physical function of this group of older people
2. To investigate the relationship between physical function, frailty and quality of life

Are they different or do they act the same in their relationship with QOL?



Measures

- Observed physical function
 - Short Physical Performance Battery (SPPB)
 - Gait speed, leg strength, balance
- Self-reported physical function
 - Nottingham Extended Activities of Daily Living (NEADL)
- Frailty
 - Edmonton Frail Scale (Rolfson et al, 2006)
- Health-related quality of life
 - SF-36 (physical component)

Edmonton Frail Scale

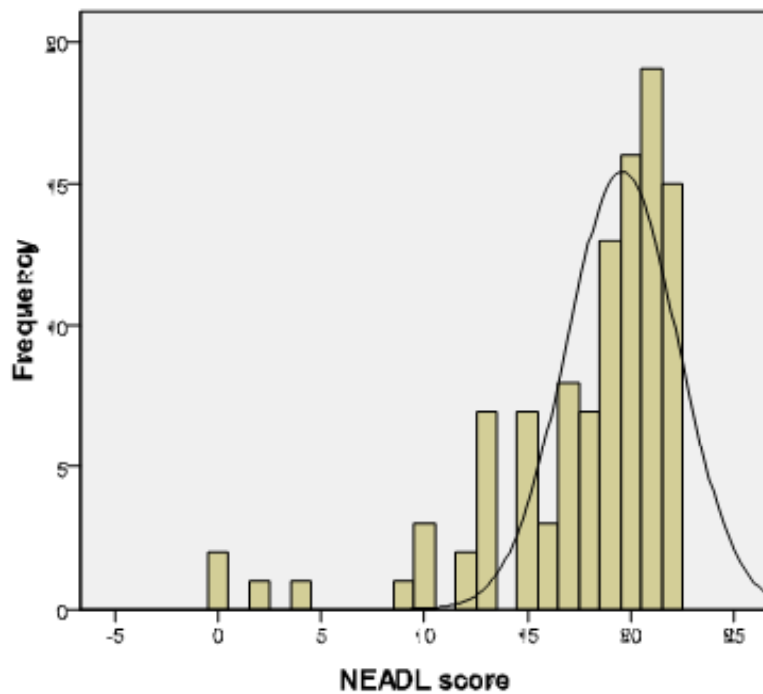
| DOMAIN | MEASURE |
|-------------------------|---|
| Cognition | Clock drawing test |
| General health status | Number of times admitted to hospital in the last year |
| | Self rated general health |
| Functional independence | "With how many of the following activities do you require help?" - meal preparation- shopping- transportation- telephone- housekeeping- laundry- managing money- taking medications |
| Social support | "When you need help can you count on someone who is willing and able to meet your needs?" |
| Medication use | 5 or more prescribed medications used regularly |
| | "At times do you forget to take your medication?" |
| Nutrition | "Have you recently lost weight such that your clothing has become looser?" |
| Mood | "Do you often feel sad or depressed?" |
| Continenence | "Do you have a problem with losing control of urine when you don't want to?" |
| Functional performance | Timed Up and Go |
| TOTAL |/17 |

Characteristics of study participants

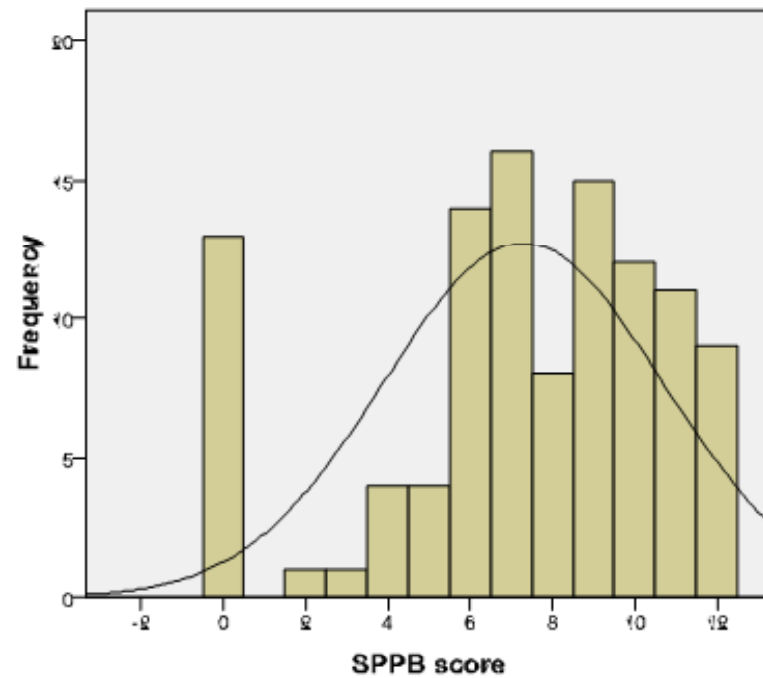
| | | Percentage |
|---|---|--------------|
| Maori ethnicity | | 30 |
| Gender | <i>Female</i> | 57 |
| Marital status | <i>Married/ Partnered</i> | 36 |
| Living situation | <i>Alone</i> | 46 |
| Number of medical conditions | ≥ 5 | 24 |
| Moderate or severe depressive symptoms | <i>GDS-15 score 0 - 4</i> | 82 |
| Nutrition risk (<i>higher = less risk</i>) | <i>SCREEN II score 50 - 64</i> | 47 |
| Physical performance (<i>higher = better performance</i>) | <i>SPPB score 8 - 12</i> | 51 |
| Activities of daily living (<i>higher = more independent</i>) | <i>NEADL score ≥ 15</i> | 77 |
| Self rated health | <i>Good, very good, excellent</i> | 84 |
| | | Mean (sd) |
| Health related quality of life (<i>higher = better</i>) | <i>SF36 PCS physical</i> | 40.04 (10.7) |
| | <i>SF36 MCS mental</i> | 56.2 (8.0) |

Distributions

Self reported function

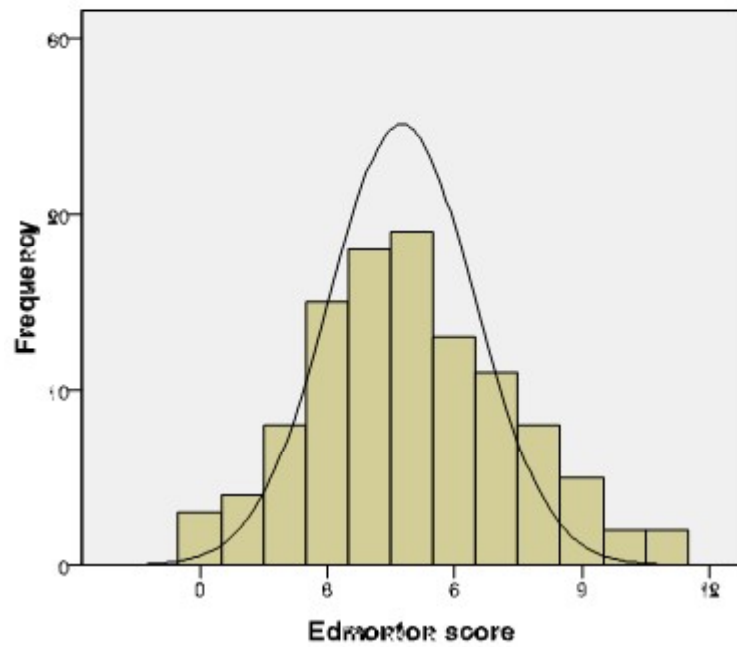


Observed function

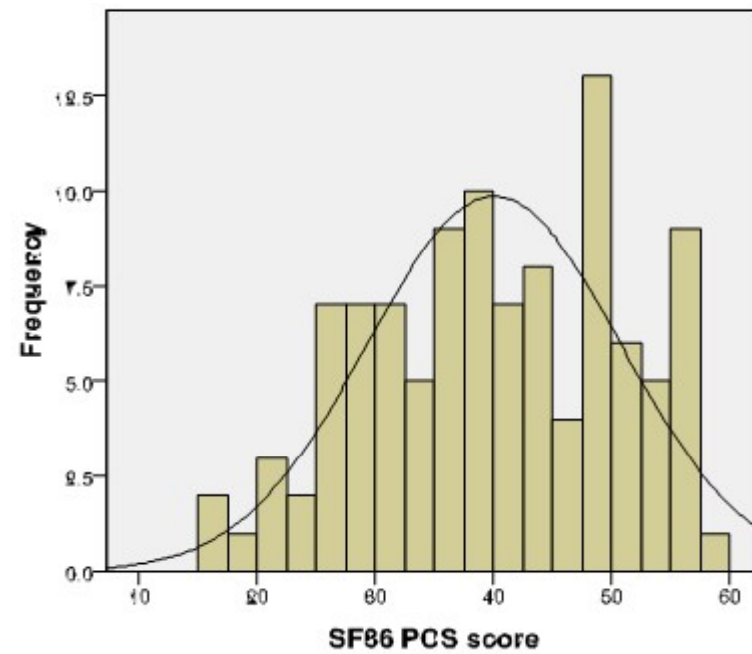


Distributions

Frailty



Health Related QOL





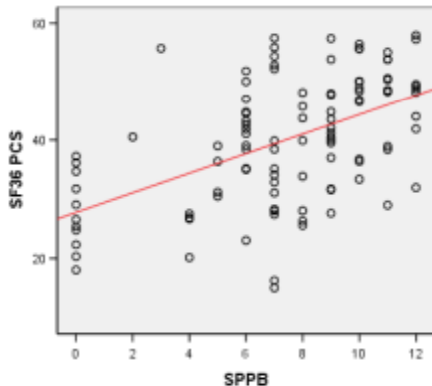
Physical function and frailty

Correlations of self reported and observed physical measures

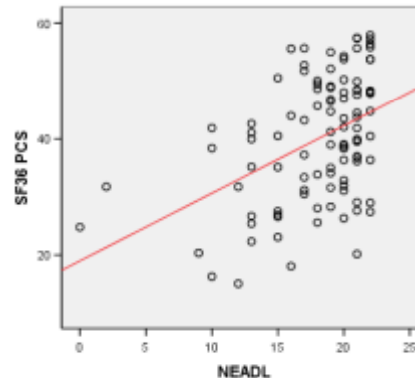
| | SPPB score | NEADL score | SF36 PCS | Edmonton Frail scale |
|----------------------|------------|-------------|----------|----------------------|
| SPPB score | 1 | .531 | .523 | -.560 |
| NEADL score | | 1 | .439 | -.607 |
| SF36 PCS | | | 1 | -.515 |
| Edmonton Frail scale | | | | 1 |

Linear relationships

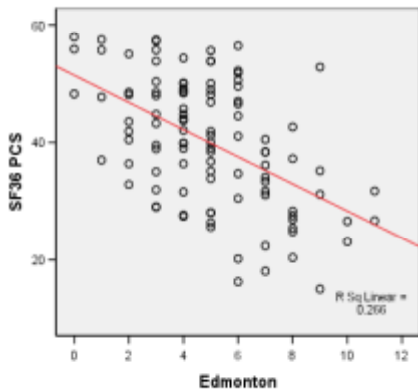
Observed function and QOL



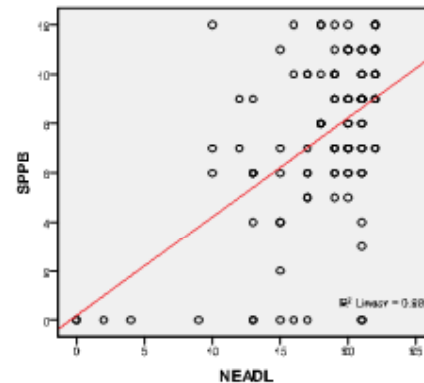
Self reported function and QOL



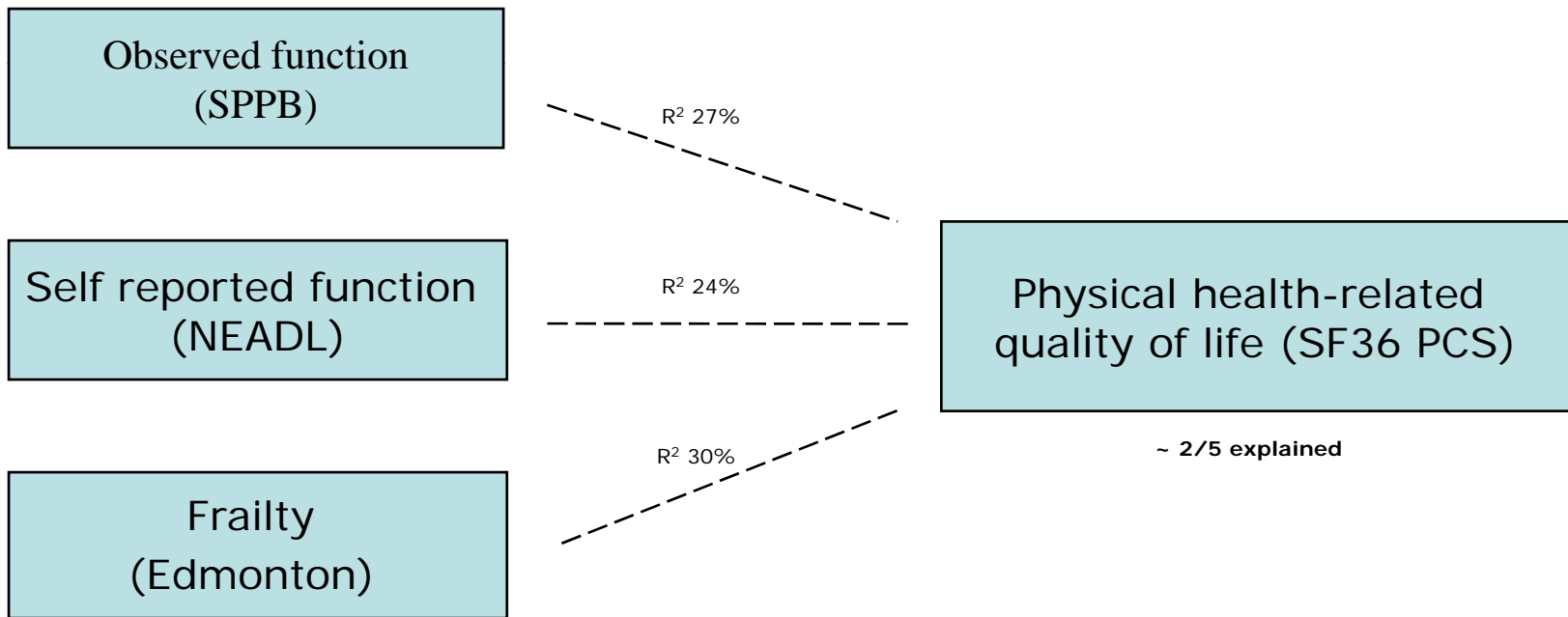
Frailty and QOL



Self reported and observed function



Explained variability in QOL, after controlling for age, gender and ethnicity





Conclusions

- Although correlated, both self-reported and observed function were independently related to QOL
- Frailty was closely related to QOL
- They may represent and measure different things
- Lived experience



Finally

- Longitudinal study
 - Objective function, subjective function, frailty, quality of life
 - 18month follow-up
- How can we measure these relationships?

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