

WP 4 EUNAAPA-questionnaire: Assessment Instruments for Physical Activity and Physical Functioning in Older People

National Report: Finland

BACKGROUND

In Finland altogether eight experts answered the EUNAAPA questionnaire. All experts were contacted per phone and ensured their commitment to answer the questionnaire. When choosing experts we tried to choose them equally from different part of the matrix. The distribution of the experts' field is shown in the table 1. One respondent answered as the physical activity experts and four as the physical functioning experts. Two persons answered as the expert in both physical activity and physical functioning and one person felt that she is not an expert in physical activity nor physical functioning. One questionnaire was filled by the group (two physiotherapists and one occupational therapist).

The planed sample size was 11 persons. However, despite of many phone calls we did not reach one expert. Two experts promised to answer the questionnaire. Despite the reminders they did not replay the questionnaire and it was too late to get alternative experts. So, the final sample size was eight. When we were sending the questionnaires, the rehabilitation centers were classified to the commercial sector. However, the respondents classified themselves to the health care/social care sector. Consequence of that, we did not have any marks on the commercial sector.

Table 1. The fields of eight EUNAAPA- questionnaire respondents in Finland.

	Community-dwelling older adults				Institutionalized older person			
	Government	Health care/ social care	Commercial sector	Academics/ Professional Education	Government	Health care/ social care	Commercial sector	Academics/ Professional Education
National level	2	4		3	2	1		1
Regional/ local level		3		1				

CURRENTLY USED TESTS IN FINLAND

Table 2 shows how commonly use the different tests are in Finland.

Physical activity

Most commonly used test for evaluating physical activity was energy expenditure (METS) according to six experts.

Tests which were not mentioned on the questionnaire but are used were:

- Bone exercise monitor, Newtest (Vihriälä et al 2003)
- Sensewear Annband test (accelerometer, sensor for skin temperature, galvanic skin response and heat flux, own, self-constructed questionnaires.

Physical functioning

Endurance

The most currently used tests for evaluating physical functioning, endurance, were 6-minutes walking test and 12-minutes walking test. Six experts answered that 6- minutes was currently used in Finland and four answered the 12- minutes walking test.

Comments for 12-minute walking test: too heavy, takes too much time

Comments for 6- minutes walking test: safe, easy, familiar for all customers, takes time

Tests which were not mentioned on the questionnaire but are used were:

- Ergometer test
- 2-minutes step test
- Predicted bicycle test and
- 1 km walking test (Malmberg et al 2002).

Mobility

In mobility the most currently used tests were 10 meters walking test, get up and go test and TUG test. Six experts answered that 10-meters walking test was currently used in Finland and five answered the get up and go test. Also five experts answered that TUG were currently used in Finland for evaluating mobility.

Comments for 10-meter walking test: correlation with other measures is good, easy to use, one part of Finnish TOIMIVA-test, both maximal and normal walking speed

Comments for get up and go test: easily used with different age-group and patients

Comments for TUG test: gives multiple information about functions, good test with practical validity, sensitive

Tests which were not mentioned on the questionnaire but are used were:

- TOIMIVA-test
- Figure of 8 run
- Walking speed 6.1 m
- Dual task 10 m
- Stair climbing
- 1 km walk test
- Walking speed 6.1 m (Fiatarone et al 2004)

Balance

Most currently used tests for evaluating balance were tandem stance, Romberg test, one leg stance and Berg's Balance scale. Seven experts answered the tandem stance, six answered Romberg test, six one leg stance and six Berg's balance scale.

Comments for tandem stance: Not use alone, part of Good Balance and Berg's tests, mostly use as part of SPPB, according to Guralnik et al 1994

Comments for Romberg test: Doctors use this systematically.

Comment for one leg stance: Not use alone, it is part of TOIMIVA-test, test is a part of Finnish TOIMIVA-test, easy to do, not very reliable, narrow feasibility (too easy and not sensitive for well functioning persons and not applicable for too frail persons), random situational factors affect the results too much.

Comments for Berg's balance scale: Not sensitive enough, multifaceted view, not very sensitive

Tests which were not mentioned on the questionnaire but are used were:

- Good Balance (Era)
- Backwards walk (Nelson et al 1994)

Range of motion:

Most currently used tests for evaluating range of motion were hand in neck test and hand in back test. In both tests five respondents answered that these tests are currently used in Finland.

Comments for hand in neck test: easy and occupational, can be use in therapy session, not very sensitive nor specific

Comments for hand in back test: easy and occupational, can be use in therapy session, Not very sensitive nor specific

Tests which were not mentioned on the questionnaire but are used to evaluating range of motion were:

- Trunk side bending test
- Joint function (Sievers et al 1985).

Dexterity:

Most currently used test for evaluating dexterity was Box and block test, which was mentioned in five questionnaires.

Test which was not mentioned on the questionnaire but is used to evaluating dexterity was:

- Purdue Peckboard (Foundation Purdue Research)
- VALPAR (VCWS9), (Rastatter et al 1969)
- LOTCA, Loewenstein occupational therapy cognitive assessment (Holim & Rahmani)

Muscle strength

In muscle strength, the most currently used tests were chair stand 5 times, hand grip strength test and chair stand once. Seven experts answered that the currently used test to evaluate muscle strength is the chair stand 5 times, seven answered hand grip strength test and six mentioned chair stand once.

Comments for chair stand 5 times: part of the TOIMIVA test, recommendations and instructions in national guides, according to Guralnik et al 1994

Comments for hand grip strength test: easy, safe, reliable, part of the TOIMIVA-test, good indicator for muscular functions

Comments for chair stand once: part of therapy, good for frail persons, According to Guralnik et al 1994

Tests which were not mentioned on the questionnaire but are used were:

- Invalidisäätiö's test battery
- RM-tests

Overall index test

Most currently overall index tests were Short Physical Performance Battery and Tinetti's Performance-Oriented Mobility Assessment. In both tests six experts answered that these tests are currently used in Finland.

Comments for Short Physical Performance Battery:

Comments for Tinetti's Performance-Oriented Mobility Assessment: easy, not very sensitive, gives info about quality of walking.

Other tests were not mentioned.

Activities of daily living

Most currently used tests for evaluating activities of daily living were Barthel index, Katz ADL and FIM. Seven experts answered Barthel index and seven Katz ADL and six experts mentioned the FIM test.

Comments for Barthel index: easy, but does not give info of cognitions, not very sensitive

Comments for Katz ADL test: simple, limited

Comments for FIM: gives good info, not easy to administrated, expensive, institutions, good to assess the amount of help

Tests which were not mentioned on the questionnaire but are used were:

- AMPS
- HAQ
- Rand 36
- NHP
- PADL-ADL
- Local self constructions

Table 2. Results of the question: Is this instrument currently used in your country? The most commonly used instrument is bolded.

TESTS	IS THIS INSTRUMENT CURRENTLY USED IN YOUR COUNTRY?			
	Yes	No	Don't know	Missing
PHYSICAL ACTIVITY				
Minnesota	2	2	3	1
Modified Baecke	1	3	3	1
Modified Dallosso	-	3	4	1
PAR	2	2	3	1
CHAMPS physical activity recall	-	3	4	1
CHAMPS' self-report	1	2	4	1
PASE	1	3	3	1
IPAQ	3	2	2	1
YPAS	-	3	4	1
Zupthen PA	-	3	4	1
FAI	-	2	5	1
Life Space	1	2	4	1
Walking Habits	2	1	4	1
Pedometer	2	2	3	1
Accelometer	2	2	3	1
METS	6	-	1	1
Double labeled water	2	2	3	1
PHYSICAL FUNCTIONING				
Endurance:				
12-minutes walking	4	3	1	-
6-minutes walking	6	1	1	-
2-minutes walking	2	2	4	-
Endurance shuttle walking test	1	1	6	-
Step test	3	1	4	-
Mobility:				
Get up and go	5	1	2	-
TUG	5	1	2	-
TUG manual	-	1	7	-
L test	-	2	6	-
Walking speed 30m	-	3	5	-
Walking speed 10m	6	1	1	-
Stops walking while talking	3	1	4	-
Functional ambulation	-	2	6	-
Dynamic Gait Index	2	1	5	-
Balance:				
Functional Reach	4	1	3	-
TUSS	-	2	6	-
Solec test	-	3	5	-
One leg stance	6	1	1	-
Tandem stance	7	-	1	-
Romberg test	6	1	1	-
FICSIT 3-balance scale	-	2	6	-
FICSIT 4-balance scale	-	2	6	-
Berg's Balance scale	6	1	1	-

Figure of Eight	2	1	5	-
Modified Figure of Eight	-	1	7	-
Step test	3	1	4	-
The 180 Degree turn	3	2	3	-
Range of motion:				
<i>Hand in neck</i>	5	2	1	-
<i>Hand in back</i>	5	2	1	-
Pour out of Pot	1	1	6	-
Dexterity:				
<i>Box and block test</i>	5	1	2	-
Nine hole peg test	2	1	5	-
Muscle strength:				
Climbing boxes	4	1	2	1
Chair stand once	6	-	1	-
Chair stance 3 times	1	3	3	1
<i>Chair stand 5 times</i>	7	-	-	1
Chair stand 10 times	-	3	4	1
Chair stand 30 sec	4	1	2	1
<i>The hand grip strength</i>	7	-	-	1
Overall index tests:				
Physical fitness field tests	-	2	5	1
Clinical outcome variables	-	3	4	1
<i>Short physical performance battery</i>	6	-	1	1
Nursing home disability instrument	-	1	6	1
Timed-functional movements	-	1	6	1
Physical performance test	1	1	5	1
<i>Tinetti</i>	6	1	-	1
Functional fitness	3	1	3	1
AAHPERD	-	2	5	1
Functional fitness in daily functioning	-	2	5	1
Physical performance and mobility examination	-	2	5	1
Elderly mobility scale	2	1	4	1
Modified mobility scale	-	1	6	1
Groningen fitness test	-	1	6	1
General motor function assessment	-	2	5	1
Activities of daily living:				
ADL index	4	1	2	1
<i>Barthel index</i>	7	1	-	-
Bristol ADL scale	1	2	5	-
CSADL	-	2	6	-
Combination ADL-IADL	4	1	3	-
FAQ	1	2	5	-
FIM	6	1	1	-
IAM	1	2	5	-
<i>Katz ADL</i>	7	1	-	-
ADL Staircase	1	1	6	-
Lawton IADL scale	4	-	4	-
Nottingham extended ADL scale	-	1	7	-
OARS-IADL	1	1	6	-

In several places in the questionnaire the TOIMIVA-test was mentioned. TOIMIVA-test includes six measurements: 10 meter maximal walking speed, hand grip strength, chair stand 5 times, one leg stance, visual analog pain scale (VAS) and peak expiratory flow (PEF). At first, TOIMIVA-test was developed to evaluate the physical function of the war invalids and veterans. Nowadays, the test battery was used also among the rehabilitation of the older persons. TOIMIVA- test have reference values that base on results of almost 3000 older persons. Test battery bases on the earlier scientific information.

References:

Pohjola L 2006 (Doctoral thesis, in Finnish, abstract in English)

Hamilas et al 2000

<http://www.valtiokonttori.fi/public/default.aspx?nodeid=16572> (in Finnish)

http://ffp.uku.fi/cgi-bin/edueitor/presenter.pl?slideshow_id=11&slide_id=78 (in Finnish)

GUIDELINES

Physical activity

National, local or professional guidelines of physical activity were not mentioned in the questionnaires.

Physical functioning

National guideline of physical functioning

TOIMIVA-test was mentioned in two questionnaires as the national guidelines. One expert named FIM as the national guideline.

Local guidelines of physical functioning

Once was mentioned Berg's Balance Scale, SPPB and TOIMIVA-test as the local guidelines.

Professional guidelines of physical functioning

One expert mentioned Finnish Age Institute: educational material and instructions, guidelines for health-related fitness tests (Malmberg et al 2002). Other answers were not existed.

FEEDBACK FOR THE QUESTIONNAIRE

In all respondents' opinion the aim of the EUNAAPA study and questionnaires were very important. However, there were difficulties to answer the questions. Especially, it was difficult to answer the question: *Is this instrument currently used in your country?* Although we have guided to answer based on your own expertise, many respondents said that they know only the situation in their own institute but not the whole Finland.

Some experts might answer that they did not use a certain test/instrument, because they thought strictly that the test is not the same as described in the reference. Some experts wished description of the test, so it could be easier to know if the used test was exactly the same as defined in the reference.

Kristina Tiainen
The Finnish Centre for Interdisciplinary Gerontology,
Department of Health Sciences,
University of Jyväskylä
P.O. Box 35 (Viveca)
FI-40014 University of Jyväskylä, Finland
Tel: +358 14 260 4352,
Fax. +358 14 260 4600
E-mail: kristina.tiainen@sport.jyu.fi

Mirja Hirvensalo
EUNAAPA contact person in Finland
Senior lecturer
The Finnish Centre for Interdisciplinary Gerontology,
Department of Sport Sciences, University of Jyväskylä
P.O. Box 35
FIN-40014 University of Jyväskylä, Finland
Tel. +358 14 260 2119
GSM +358 050-410 3713
Fax +358 14 260 2101
E-mail mirja.hirvensalo@sport.jyu.fi