

Laver Fawcett, Alison ORCID:

<https://orcid.org/0000-0002-9924-1319> and Mallinson-Howard, Sarah H. ORCID: <https://orcid.org/0000-0002-8525-1540> (2014)

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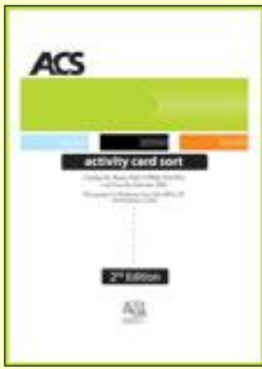
The development of Activity Card Sort- United Kingdom (ACS-UK)

Alison Laver-Fawcett PhD, OT(C), DipCOT, PCAP

Sarah Mallinson, BSc, MSc

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a.laverfawcett@yorks.ac.uk



Background: Activity Card Sort (ACS)



- Well established measure of activity engagement for older people (Baum and Edwards, 2008). Originally developed by Dr Carolyn Baum for use with people with dementia in the USA (Baum, 1993)
- 89 Photograph cards for activities grouped in 4 categories:
 - Instrumental, Low Demand leisure, High Demand Leisure, Social
- 3 ACS versions: Recovery, Institutional and Community Living (using the same photo activity cards)
- Different sorting categories of engagement for the three versions
- The Activity Card Sort (ACS; Baum & Edwards, 2008) is recognised internationally as a useful self-report measure of participation for clinical practice and research (e.g., Eriksson, et al., 2011)

Not Done
Since Age 60

Do Less

Given up

Do Now
(at same level as before)



Work (paid)

ACS
20



Gardening/Growing
Flowers

ACS
72



Laundry

ACS
4



Taking Care of a Pet

ACS
14



Studying for Personal
Advancement

ACS
73



Household Maintenance

ACS
8



Volunteer Work

ACS
84



Listening to Radio

ACS
54



Dancing

ACS
82



Sewing
(clothing and household, including mending)

ACS
24



Dishes

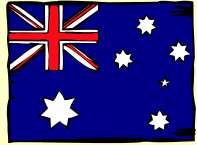
ACS
3



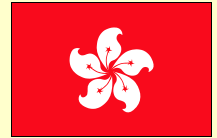
Taking Out the Trash

ACS
6

The ACS uses Q-Sort Methodology
(Stephenson, 1936)

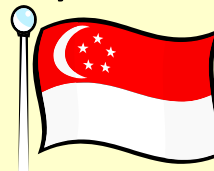
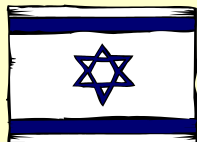


Other versions of the ACS



Researchers have adapted the ACS to develop culturally sensitive and valid versions:

- Arab countries (A-ACS; Hamed et al., 2011; Hamed & Holm, 2013)
- Australia (ACS-Australia; Packer, et al., 2008)
- Hong-Kong (ACS-HK; Chan et al., 2006)
- Israel (Katz et al., 2003; Sachs & Josman, 2003)
- Korea (Lee, 2009, as cited in Eriksson et al., 2011)
- Puerto Rico (Orellano, 2008)
- Netherlands (Jong, van Nes, Lindeboom, 2012)
- Singapore (as reported by Eriksson et al, 2011)



ACS-UK study: Purpose



- To conduct a content validity study to generate and select culturally relevant activity items for inclusion in the ACS-UK.
- Cross-cultural research can provide valuable findings but culturally relevant measures which maintain equivalence are needed for this purpose (Alegria, et al., 2004)
- The challenge for test developers is 'striking a balance between the emic perspective (**seeking equivalence within the culture**) and the etic perspective (**maintaining comparability**)'
(Alegria et al., 2004)
- The methods used to develop other ACS culturally relevant versions were reviewed to inform this study's methodology.
- We aimed to produce a measure that included activities culturally relevant to UK older people and that replicated the ACS' Q-sort, sorting categories and scoring method.
- This study was undertaken with permission and advice on the methodology from the authors of the ACS (Baum & Edwards, 2008).



ACS-UK: Mixed Method

Item generation

- Activities were drawn from the most empirically robust published versions of the ACS (in English)
 - (Australia, Packer et al., 2008; Hong-Kong, Chan et al., 2006; Israel, Katz et al., 2003; and US, Baum & Edwards, 2001; 2008)
- Literature search of peer-reviewed research published in the last decade identified three UK time-use studies involving samples of UK older people
 - (Ball, Corr, Knight, & Lowis, 2007; Chilvers, Corr, & Singlehurst, 2010; Knight et al., 2007)
- Expert Opinion
- Ethical approval provided by the York St John University Ethics committee

Item selection and reduction

- Consulting a sample of people aged 65 years and over to determine the most common activities for this age group in the UK.
- A survey-based design
- Two-round mixed-method approach.
- Round 1 comprised an activity participation questionnaire (postal or on-line survey): n = 177
- Round 2 involved a further activity participation questionnaire completed either individually (postal or via interview) or in small focus groups: n = 21

Sampling

Inclusion criteria for both Rounds 1 and 2 were:

- people aged 65 years or older
- Living in the community
- Able to communicate in English
- Activity levels not restricted by illness or disability
- Individuals were excluded if they were receiving care from social or national health services (other than routine general practitioner care, e.g., annual flu vaccination).
- Participant recruitment was sought from all four countries and intended to reflect UK census data regarding ethnicity (Office for National Statistics, 2001)

Sampling:

- convenience sampling through personal and professional contacts
- purposive sampling using website-advertised older people groups
- snowball sampling



Combined total of N = 196
older people contributed to the
development of the ACS-UK

ACS-UK: 1st Round survey



- Pilot survey (n = 5; convenience sample)
- Round 1 Survey (n = 177)
- 1 question related to inclusion / exclusion criteria
- 4 Consent questions
- 125 activity items to assess level of activity participation over the past year rated on a 5-point ordinal scale:
 - *at least once a day*
 - *at least once a week*
 - *at least once a month*
 - *at least once a year*
 - *never*
- Participants were asked to suggest and rate their participation in up to five additional activities
- Demographic questions: gender, marital status, age, place of birth, length of residence in UK, current place of residence to nearest town / city, highest level of education, whether retired, how long retired, if working type of work, ethnic origin.

Option of
postal
survey or on-
line version

ACS-UK study: Round 2



Round 2 involved a further questionnaire: this time participants contributed to the study through a combination of interview, small group focus groups or via post (n = 21)

1. to consider the additional activities provided by respondents in Round 1 and establish if these 20 new activities would be relevant to the wider UK older population
Perceived participation was rated on a 5-point ordinal scale: (0 = *no-one does this activity* to 4 = *most people do this activity*)
 2. to review activity items from Round 1 that fell close to the cut-off level
 3. to review the wording of activity items to ensure clarity
 4. to consider the domain categorisation of activities.
- The same inclusion criteria, consent questions and demographic questions were used as in Round 1.

Results from Round 2



- **Rewording items**
- **Encompass several items under a broader heading:**
 - ‘Paying household bills’ is an element of ‘Managing Financial matters’
 - ‘Walking the dog’ is an aspect of ‘Taking care of pets’
- **Combining items:**
 - ‘Listening to radio / music’; ‘Maintaining the garden / tending your allotment’; ‘Going on holiday / travelling’; and ‘Researching family / local history’
- **Separating items:**
 - ‘Gambling’ (which included playing the lottery, bingo, placing a bet, and going to a casino) was expanded to form two separate items: ‘Gambling’ and ‘Playing Bingo’.

ACS-UK: Data analysis & Findings

- Means and standard deviations were calculated for all items:
 - The most common activities that UK older people had participated in over the past year (at end of Round 1)
 - The most common activities perceived for UK older people (at end of Round 2)
- Activity items with mean values of < 2.0 were considered for removal. This was the equivalent of:
 - participating 'less than once a year or never' in Round 1
 - 'Rare or no participation' in Round 2
- Tables drawn up: activities ranked above this cut-off point at the end of Rounds 1 and 2
(Laver-Fawcett and Mallinson, 2013)



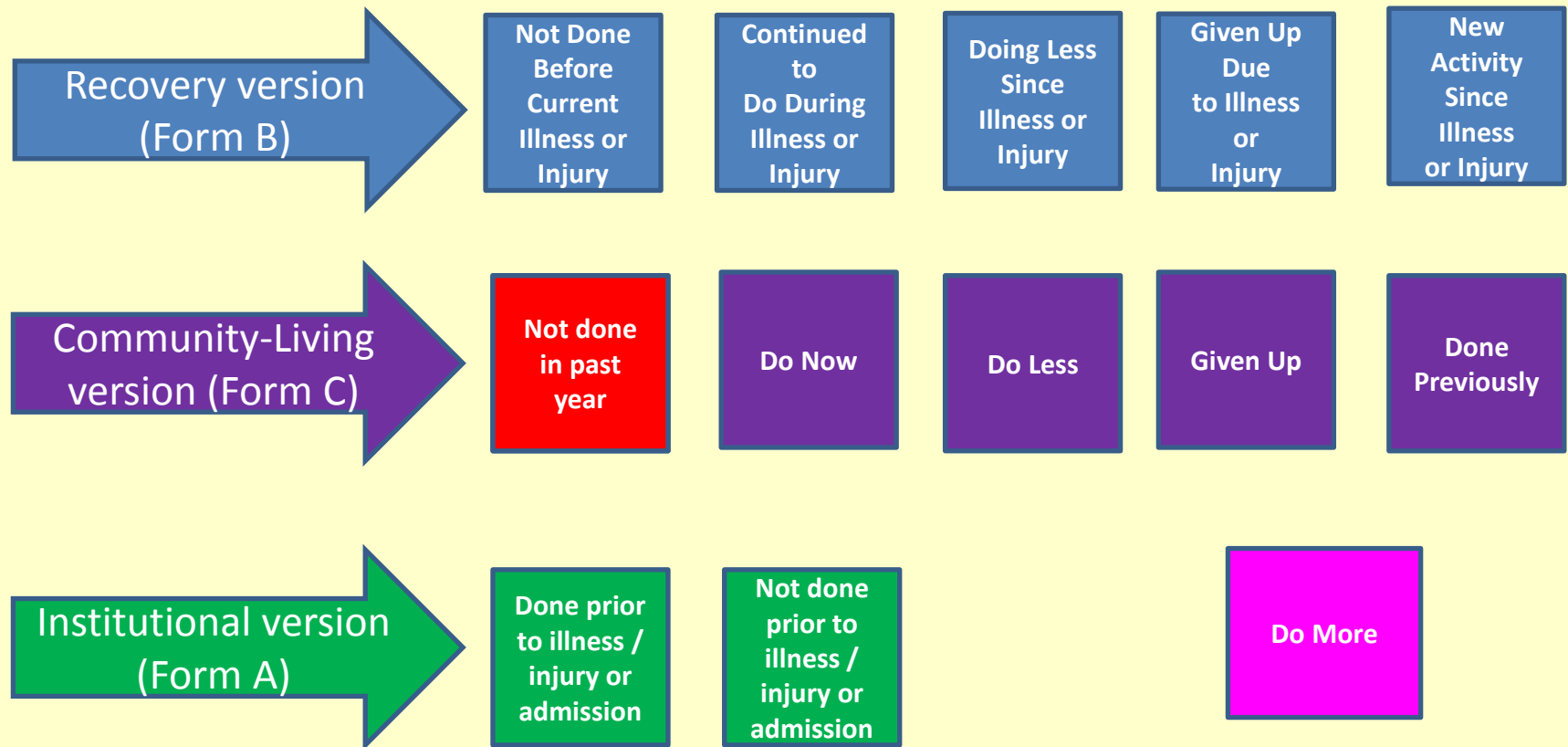
Activity Card Sort – United Kingdom (ACS-UK)

91 Activity items were grouped under four categories:

- instrumental activities of daily living (n = 27)
- high demand leisure activities (n = 15)
- low demand leisure activities (n = 25)
- and social / cultural activities (n = 24)



Sorting categories for ACS-UK



+ Identify the five most important activities to you (they may be those you no longer do)

ACS-UK study: Findings

- The ACS-UK has seven items not included in other ACS versions
 1. being on a committee
 2. voting
 3. keeping a diary / calendar of events
 4. relaxing / meditating
 5. attending a leisure / hobby group
 6. going for drinks at pubs / social clubs
 7. attending a night class / adult education group





Findings

- ACS (Baum & Edwards, 2008) item 'Reading magazines / books' was separated into two items for the ACS-UK following feedback from people with dementia (Laver-Fawcett, 2012) who found this combined activity item difficult to categorize
- They explained that owing to short term memory problems they were unable to remember the plot or characters required to read books, but were still able to read magazines.



Example ACS-UK activity card



Voting

ACS-UK: 79

Comparison with other ACS versions

(study by Eriksson et al, 2011)

One hundred and five different ACS items were identified across eight ACS versions by Eriksson et al (2011).

- 10 activities were identified as **'central activities'** for older people
- All 10 central activities are included in the ACS-UK
- 16 activities were identified as **Central Asian Activities**
- 8/ 16 in ACS-UK, but there was some slight variation in terminology used in the ACS-UK.
- 18 activities identified as **Central Western Activities**
- 16/18 of theses are included in the ACS-UK and 2 other activities were considered during this study, but did not meet the cut off.



Limitations related to the sample

- More females than males (Round 1 = 72.3 % and Round 2 = 57.1% female participants)
- Whilst there was some ethnic diversity:
 - (Round 1: 82.4% were White British; 6.3% Asian / Asian British; 1.1% White European; 10.2% White Irish)
- Our sample did not include people from Chinese, Black Caribbean, Black African, or Black British ethnicities
- Future studies:
 - samples with greater ethnic diversity
 - individuals experiencing health conditions
 - representative gender distribution



Key reference

- Laver-Fawcett AJ, Mallinson S (2013) The Development of the Activity Card Sort – United Kingdom version (ACS-UK). *OTJR: Occupation, Participation, and Health*, 33 (3), 134-145. DOI: 10.3928/15394492-20130614-02



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- Occupational therapists at the Retreat Hospital: feedback on the quality of ACS-UK activity photographs
- All the 196 participants who contributed to this study
- All the people who have contributed photographs



Questions and discussion



Contact details

Alison J. Laver-Fawcett, PhD, O.T.(C), DipCOT, PCAP

Faculty of Health and Life Sciences
York St John University
Lord Mayor's Walk, York
YO31 7EX

+44(0)1904-624624

a.laverfawcett@yorksja.ac.uk

www.yorksja.ac.uk/RCOMH





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