

What attributes do older people prefer for their local open space?

A choice-based conjoint analysis approach

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Background

Abundant evidence shows that a physically active lifestyle provides health and mental benefits for older people.

However, going outdoors can be difficult due to increasing frailty and environmental barriers.

A neighbourhood environment facilitating older people's outdoor activities will most likely enhance their well-being.



Main Objective



Our purpose is to know what are the environmental attributes and through which mechanisms they make a difference in older people's health and well-being.

Research Questions

1. What are the mechanisms through which neighborhood environments enhance health?
2. How perceived quality and accessibility of neighbourhood open spaces affect patterns of activity?
3. What features facilitate or hinder physical activity in outdoor spaces?
4. What are older people's preferred environmental features for their local open spaces?
5. How can we create accessible outdoor environments for older people? (examples of design guidelines)

Data Collection Method

Postal questionnaire (2200 older people living in 20 local authorities) $n = 211$

Distribution through local housing associations (older people living in sheltered housing) $n = 102$

Translated sessions (2 minority ethnic groups) $n = 22$

$n = 335$

Total Sample Size

Choice-based conjoint questionnaire $n = 237$

Objectives



- 1) Investigate the relative importance (i.e. utilities) of outdoor environment attributes
- 2) Examine change in the levels of the attributes
- 3) Examine whether utility scores represent a homogeneous group or whether there are distinct subgroup preferences
- 4) Map potential trade-off scenarios among diverse open space features (e.g., facility, nuisance, trees along footpath, car park, and water features).

Methodology



- Choice-based conjoint questionnaire
- Partial profile design by use of Sawtooth software

Questionnaire Design: Attributes & Levels



Distance

0-5 minutes walk

5-10 minutes walk

10-15 minutes walk

15 minutes or more

Facility

Café/Toilets

No special facility

Pavement

existence

Pavement all the way

Pavement part of the way

No pavement

Nuisance

Youngsters hanging around

Dog fouling

Signs of vandalism

No particular nuisance

...

Questionnaire Design - Example

❖ QUESTION 1 ❖

<input type="checkbox"/>			
Heavy traffic (including lorries)		Few seats in the park	
Nothing special to watch		Signs of vandalism	

<input type="checkbox"/>			
Medium traffic on route		Many seats in the park	
Other's activities to watch		No particular nuisance	

❖ QUESTION 2 ❖

<input type="checkbox"/>			
Takes 10-15 min walk to get to		No seats en route	
Many, well- spaced trees and plants		Wildlife in the park	

<input type="checkbox"/>			
Takes 5-10 min walk to get to		Some seats en route	
Some trees and plants		Good views from the park	

What about Choice-Based Conjoint Analysis?

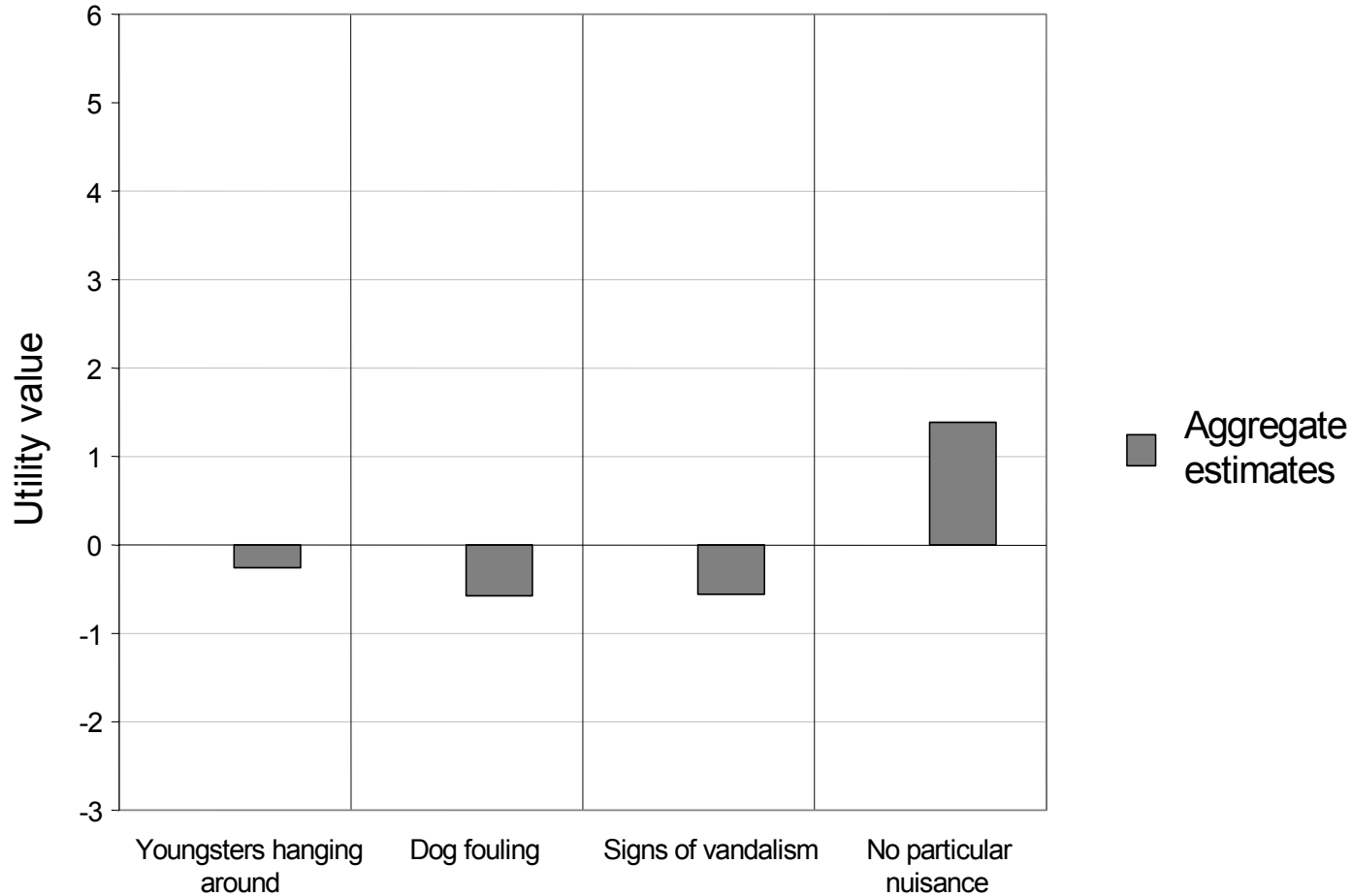
- 1) Provides information on the relative impact of change of one attribute versus another
- 2) Full set of preference scores (part-worth utilities)
- 3) Utilities generated in conjoint are based on relative consideration of all attributes
- 4) Choice task is more realistic
- 5) Use of Marketing Decision Simulator

What are older people's preferred environmental features for their local open space?

Older people prefer an open space:

- without nuisance
- with cafes and toilets
- with dense trees and plants
- light traffic
- wildlife to watch
- well maintained

What are participants' preferences for environmental features within Attributes?



Do the utility scores represent a homogeneous group or are there distinct subgroup preferences?

1. Whether or not people live alone

- Those who live with someone: provision of facilities and car park.
- Those who live alone: distance and trees along the footpath.

2. Whether or not they have difficulty in getting around

- provision of seats both at the open space and en route

Potential trade-off scenarios among diverse open space features

Scenario 1: Facilities vs. Trees/plants

- **Facilities (seats, toilets, shelters, etc.)**



■ Trees/Plants



Potential trade-off scenarios among diverse open space features

Scenario 2: Nuisance vs. Facilities

- **Lack of nuisance**



- **Facilities** (seats, toilets, shelters, etc.)



Implications

People living in a supportive outdoor environment tend to be more active, healthier and happier than those living in an unsupportive environment.

Improving the quality of the outdoor environment (making the choice of going outdoors easy and enjoyable) may be an effective way to encourage an active lifestyle and conducive to a better QoL.

