Effectiveness of a lifestyle intervention in promoting the well-being of independently living older people: results of the Well Elderly 2 randomised controlled trial


Record Status
This is a critical abstract of an economic evaluation that meets the criteria for inclusion on NHS EED. Each abstract contains a brief summary of the methods, the results and conclusions followed by a detailed critical assessment on the reliability of the study and the conclusions drawn.

CRD summary
This study evaluated a lifestyle intervention that promoted the well-being of independently living older people, using the outcomes from the Well Elderly 2 trial. The authors concluded that the intervention was cost-effective and applicable on a wide scale. The outcomes of the clinical trial were useful, but there were too many uncertainties about the long-term effectiveness, the method of calculating the utilities, and the cost of the intervention, to have confidence in the cost-effectiveness results.

Type of economic evaluation
Cost-utility analysis

Study objective
This study evaluated a lifestyle intervention, to promote the well-being of independently living older people, using the outcomes from the University of Southern California's Well Elderly 2 trial.

Interventions
The Lifestyle Redesign intervention was compared with no treatment. The intervention consisted of weekly two-hour small-group (<10 people) sessions, with a licensed occupational therapist, and up to 10 one-hour individual sessions. Monthly community outings were scheduled to facilitate the direct experience of lifestyle routines, such as public transport. The sessions and outings focused on issues, such as home and community safety, social relationships, energy conservation, cultural awareness, and changing lifestyle habits.

Location/setting
USA/community.

Methods
Analytical approach:
The costs and effects were from a randomised controlled trial (Well Elderly 2 trial). The time horizon was the end of the study period of six months. The authors did not state the study perspective.

Effectiveness data:
The primary clinical outcomes of the trial were: norm-based scores on Version 2 (v2) of the SF-36 health survey, which measured perceived physical health and mental well-being; the Center for Epidemiologic Studies - Depression (CES-D) Scale scores; and the Life Satisfaction Index (LSI)-Z scores. Several cognitive outcomes were assessed. The cost-effectiveness analysis used the SF-36v2 scores. Participants in the trial were aged between 60 and 95 years, and were residents or users of the recruitment sites. The sample included a large proportion of African American or Hispanic people, with 232 patients randomly assigned to the intervention, and 228 to the control. All patients were tested before the start and on completion at six months. Outcomes were evaluated on an intention-to-treat basis. After six months, the control participants were allowed to cross over to the intervention for six months.

Monetary benefit and utility valuations:
SF-36v2 change scores from the start were used to calculate utility values and quality-adjusted life-years (QALYs).

Measure of benefit:
The measure of benefit was the QALYs gained.

Cost data:
The costs of staff time for the intervention were analysed. These costs were based on an annual full-time equivalent salary from the Bureau of Labor Statistics (2006 report). All costs were reported in US $, and in UK £, using the UK hourly wage of an occupational therapist, from the National Institute for Health and Clinical Excellence (2008 report).

Analysis of uncertainty:
Statistical tests for between-group differences were conducted and probabilities were reported.

Results
The incremental QALYs for the treatment, compared with the control, were 0.038 (p<0.02).

The average intervention costs were $783 per participant, or £472.5 per participant using UK costs.

The cost per QALY gained was estimated to be $41,218, or £24,868 with UK costs.

Authors' conclusions
The authors concluded that the intervention was cost-effective and applicable on a wide scale.

CRD commentary
Interventions:
The intervention was well described, with all the components reported in a table. The comparator of no intervention appears to have been the usual practice in the local area.

Effectiveness/benefits:
The effectiveness evidence was from a randomised controlled trial, which should have a high level of validity. The method of randomisation was not stated. Blinding was not possible due to the nature of the intervention and control. There was no follow-up beyond the end of the trial, so it is unknown if the effects of the intervention were sustained after the intervention ended. SF-36v2 change scores were used for the utilities to calculate the QALYs, but the methods were not fully stated.

Costs:
The costs analysed were consistent with a public health service perspective. Only the costs of staff time for the intervention were analysed. Staff time may have been the main cost, but other costs might have been relevant to the health service. No price year was reported. The cost-effectiveness of the intervention appears not to have been the main focus of the paper. The staff costs seem to have come from appropriate sources for both the US and the UK. If the health of the patients improved, it is possible there were future health care cost savings.

Analysis and results:
The analysis and results were adequately reported. The probabilities associated with between-group differences were reported, but there was no measure of uncertainty around the cost-effectiveness estimate. Both US and UK cost estimates were provided, but the effectiveness estimates might not be generalisable due to issues, such as cultural characteristics of the study population.

Concluding remarks:
Although the outcomes of the clinical trial were useful, there were too many uncertainties about the long-term effectiveness, the method of calculating the utilities, and the cost of the intervention, to have confidence in the cost-effectiveness results.

Funding
Supported by National Institutes of Health, USA.

Bibliographic details

PubMedID
21636614

DOI
10.1136/jech.2009.099754

Original Paper URL
http://jech.bmj.com/content/66/9/782.abstract

Indexing Status
Subject indexing assigned by NLM

MeSH
Aged; Aged, 80 and over; Cognition /physiology; Comparative Effectiveness Research; Cross-Over Studies; Female; Geriatric Assessment; Health Behavior /ethnology; Health Promotion /economics; Health Services for the Aged /economics; Health Status Indicators; Humans; Life Style /ethnology; Los Angeles; Male; Mental Recall; Middle Aged; Occupational Therapy /economics /psychology; Outcome Assessment (Health Care); Quality of Life; Quality-Adjusted Life Years; Residence Characteristics /statistics & numerical data

AccessionNumber
22012041560

Date bibliographic record published
06/02/2013

Date abstract record published
24/09/2013