

# FOCUS ON RESEARCH

## PROGRAMME DEVELOPMENT AND FEASIBILITY OF A COMBINED NUTRITION AND PHYSICAL ACTIVITY INTERVENTION IN OLDER HIP FRACTURE PATIENTS

### Researchers

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### Aim

To develop and evaluate the delivery, acceptability, adherence and assessment procedures for a future trial of a dietary and physical activity intervention in older hip fracture patients.

### Project Outline/Methodology

This feasibility study was conducted in the homes of community dwelling patients (aged 65 years or over), admitted with hip fracture. Participants were randomised either to a nutrition/activity intervention group or a control group receiving usual care. Information regarding usual diet and current activity levels (meal patterns, dietary intake, food preferences, walking times) were collected from both groups using questionnaires and all patients were asked to wear an accelerometer for 7 days to record activity levels. Lower limb function tests (walking speed, standing balance, repeated chair stands) were conducted. Costs associated with the programme delivery were recorded. The intervention group also received behavioural advice aimed at improving dietary intake and increasing walking times. Motivational tools (memo board, food shopping notebook, 2 snacks - fruit juice, fruit cake) were given to assist adherence. At the end of the intervention period, patients were asked to rate the acceptability and assessment procedures of the programme by an independent researcher.

### Key Results

Of the 114 hip fracture patients admitted to the orthopaedic unit over 15 weeks, a total of 21 (4 males, 17 females) entered the study with a mean age of 82 years. The presence of confusion/dementia prevented 33 patients out of 114 (29%) from taking part. Nine of the participants withdrew from the study before baseline assessments had been obtained. All 12 participants (females) completed all the assessments (questionnaires, lower limb function) without too much difficulty. It was evident that there was scope for dietary improvements with regard to the number of daily eating occasions, fruit, vegetable, fibre and fluid intakes but changing individuals lifelong eating habits proved challenging and the concept of goal setting was not fully

understood by all participants. Eleven out of 12 individuals agreed to wear the accelerometer providing sufficient useful data, showing large variations in physical activity levels between individuals. Adverse weather conditions, lack of confidence and medical problems curtailed outdoor walking activities. Despite these difficulties, positive changes in diet and activity levels were observed by the end of the study in the group receiving the advice. Favourable comments were received from the majority of participants regarding the overall design, delivery, acceptability and assessment procedures used in the programme. The overall cost of the intervention (dietician's time, travel, motivational materials) amounted to £83.80 per patient.

### Conclusions

Approximately two-thirds of hip fracture patients were ineligible to participate because of their physical/mental frailty. The assessments used were largely acceptable to those who took part but the timing for the intervention was not ideal. However the information collected indicated positive trends towards improvements in both nutritional intake and increased physical activity.

### What does this study add to the field?

Assessing and delivering a combined nutritional and physical activity intervention is possible but recruitment of hip fracture patients proved problematical. Reaching the most vulnerable individuals remains a challenge.

### Implications for Practice or Policy

Evaluating this type of intervention in orthopaedic wards and involving patient's carers may prove more feasible.

### Where to next?

Efforts need to be directed towards developing strategies for recruiting and retaining a representative sample of hip fracture patients for future intervention studies.

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