

Prevention of falls in older people: the Weymouth and Portland project

key words

- Falls in the elderly
- Accident prevention
- Multidisciplinary working

Eileen Mitchell describes how the assessment of pre and post-intervention outcome measures helped to prove the effectiveness of a new post designed to help manage falls among older people

Falls are a major cause of disability and mortality in the over-75s: 400,000 people each year attend accident and emergency (A&E) departments in England as a result of accidents, with 14,000 dying annually due to an osteoporotic fracture (DoH 2001). Problems associated with falling include loss of mobility, psychological difficulties, increase in dependency and/or disability, hypothermia, pressure-related injury and infection. The catastrophic consequences of a fall cannot be underestimated.

South West Dorset PCT (formerly Dorset Community Trust) was allocated £3,000 up to March 2000 with a further £6,000 per year for the subsequent two years to 2002/03 to promote a prevention of falls programme. Health and social services personnel agreed the specification for a new post to increase local support networks and, in line with national guidelines for managing falls among older people (Simpson *et al* 1998a), the local Dorset guidelines (Dorset Healthcare Guidelines 2000) and *Promoting Independence* (DoH 1998), additional funding was secured to run chair-based exercise training for up to 32 people.

Project plan and literature review

The remit of the post-holder was to undertake community assessment of referred individuals identified as being 'at risk' of falling, referred mainly by the district nursing team members. Although the trust had a policy for falls prevention, including risk assessment, district nurses did not feel they had the time and resources to carry these out effectively. The argument for a rehabilitation team base was discounted at that time as team members were already following policy procedures with those referred via inpatient services. There was, however, a definite need to capture those individuals at risk living in the community.

The post was initially seen as a pilot and the falls assistant was offered a six-month, fixed-term contract subject to evaluation prior to any extension. Because of personal circumstances the position became vacant after only four months and, following speedy evaluation, a new post-holder was recruited with many years' experience as an occupational therapy assistant. A supervision model within the framework of 'the helping professions' (Hawkins and Shohet 2000) was adopted.

This article describes work undertaken up to the end of March 2002; data for 2002/03 are currently being analysed.

Background

Falls are considered to be events that can be predicted with reasonable certainty and therefore be prevented (Morse 1996). A number of consequences can be identified following a fall such as fear of falling (Tinetti *et al* 1998), loss of function and independence (Dunn *et al* 1992), soft tissue damage (Chattopadhyay and Starczewski 2000) and other non-fatal injuries (Blake *et al* 1988). Tinetti *et al* (1998) advise multifactorial interventions following thorough assessment. It is important therefore to consider all the implications of designing a falls programme in the community. Exercise has been well researched and is a proven, effective means of reducing the risk of falling (AGS *et al* 2001, Campbell 1997). The training of the post-holder and up to 30 others within West Dorset in chair-based exercise was undertaken as a result of this project.

Pre and post-intervention outcome measures were identified to assist in the evaluation of the project in order to determine the level of risk and to measure change over time. These included:

- HOMEFAST, a checklist of yes/no answers regarding home difficulties (MacKenzie *et al* 2000)
- Westmead Home Safety Assessment (WeHSA) that identifies 72 hazards in the home and is very comprehensive (Clemson 1997, Clemson *et al* 1999)
- CONFbal, indicating the confidence ratings of clients regarding fear, concern and likelihood of falling and so on (Simpson *et al* 1998b)
- Falls Risk Assessment (FRA)
- the standardised assessment used across both North and South West Dorset primary care trusts as defined in the falls policy (Mitchell and Dyer 2002).

The standardised assessment includes two evidence-based assessments: the Timed Unsupported Steady Stand (TUSS) and the 180-degree Turn (Studenski *et al* 1994, Nevitt *et al* 1989). The TUSS and Turn indicate risk in a valid and reliable format and are simple measures requiring no specialised equipment or expertise. The FRA, as a policy requirement, was widely used locally by nursing and allied health practitioners, at qualified and assistant level.

Adherence to advice must not be underestimated. There is a suggestion that if older people have assistance from relatives they may take advice more readily than if they are alone (Cumming *et al* 1999). Advice in the form of diet, foot care and foot wear have been offered using the Dorset osteoporosis leaflet, *How to Prevent Breaking*

Table 1 Referral to other organisations

Organisation	Number of referrals
Anchor 'Staying Put'	12
Care & Repair	2
Joint home equipment store	22
Weymouth/Portland 'Lifeline' or 'Magna Careline'	7
Other	19
Physiotherapy	8
Social services OT	4
Total	74

your Hip (Osteoporosis Dorset 2002), and guidelines available locally, accessible in hard copy and electronically.

Data analysis

Information technology (IT) support was offered by the information services department, based at Forston Clinic, the headquarters of the North Dorset Primary Care Trust which employs the author in her capacity of falls adviser. The following information relates to August 2001–March 2002, taking into account clients already on the caseload when the second post-holder was appointed. Information was collected weekly using data-collection sheets designed by the author.

A total of 65 patients were known to the service, with 56 new referrals during the period August to March. Waiting times ranged from one to eight days, with 81 per cent of all referrals being seen within five working days and 62 per cent within three working days. A good standard for a first contact is, therefore, three working days, and five working days for the first face-to-face contact, taking into account that the dates analysed included weekends.

Referrals to the service included: 38 from the NHS; four from social services; eight from wardens, family and self-referrals; and 58 from unknown sources – incomplete lines on the data sheets may have been misinterpreted, since it was not deemed necessary to repeat previously entered data. However, most information is attributed to the NHS/social services agencies, as one would expect.

Referrals from the service to other organisations are illustrated in Table 1. Referrals can be, and have been, made to more than one agency if appropriate. As the project was being piloted initially, referral options were not offered via A&E, patients were referred back to their local GP for follow-up.

The breakdown for onward referrals suggests that the post-holder is in the front line of care provision and therefore does not need to refer on to social services, where much of the advice/referral on to others would normally be managed. As social services' occupational therapy caseloads are heavily weighted, this clearly suggests a fast-track assessment/advisory service which will reduce the number of referrals to an already over-pressurised service. The Anchor and Care & Repair schemes operate to support and advise on home modifications and safety issues.

One of the difficulties posed to any service is patient adherence (Cumming *et al* 1999). As a consequence, the data collection sheet

captured information relating to advice offered and subsequently taken. Only 28 per cent (33) of patients took all the advice offered, while 68 per cent (79) accepted some advice. Only five people refused advice (less than 1 per cent). The high patient figures relate to information collected on each visit rather than the number of individual patients on the caseload.

Causative factors of people referred to the service included environmental and physical, with the main problems identified by referrers being those of a physical nature. This includes frail, older people often struggling with poor mobility, poor balance and unsteady gait. No information was collected relating to pathology; rather it was focused on performance. Environmental factors relate to hazards in the home.

A variety of outcome measures was used in the assessment process, as shown in Table 2. This demonstrates that 86 outcome measures were used for the 56 people referred. Falls risk assessment was undertaken with only 73 per cent of the people referred. The HOMEFAST checklist was used in 57 per cent of cases while the CONFbal and WeHSA measures were used in only 11 per cent and 12 per cent respectively. Future audit of client notes may clarify the

lower levels of achievement than expected. Missing data cannot be ruled out. The WeHSA, although looking lengthy, is a highly respected, validated home-hazards assessment and is available in all patches across West Dorset for use by occupational therapy (OT) staff. Future education and training with regard to the assessment was identified on a recent learning needs analysis questionnaire returned by OT staff district-wide. This is currently being addressed.

Outcome analysis was divided into episode outcome and clinical outcome (Table 3). Each time a patient is seen the episode outcome identifies the status of involvement. Most cases required continuous intervention with more than one visit in order to undertake multifactorial interventions.

Clinical outcome has been positively demonstrated, with only three falls out of 30 total outcomes reported. Under 10 per cent of patients referred have had a subsequent fall. This indicates a high success rate, suggesting the service is proving its effectiveness.

Table 2

Outcome measures	Number
HOMEFAST	32
CONFbal	6
Falls risk assessment	41
WeHSA	7
Total	86

Table 3 Outcome analysis

Episode outcome	Clinical outcome
■ Continuous assessment	■ Falls
■ Continuous intervention	■ No falls
■ Discharge	
■ Readmission to hospital or residential settings for rehabilitation) and clinical outcome	

Recommendations

The recommendations for additional posts to be replicated are strong. Draft guidance from the National Institute for Clinical Excellence (NICE 2004) supports multi-factorial interventions and this early project endeavoured to do just that. Priorities for the service, in line with the *National Service Framework for Older People* (NSF) (Department of Health 2001) include:

- the post to be considered permanent
- posts in each of the six localities in West Dorset to be considered (including the present post)
- IT support to be confirmed in the long term
- training/education required in order to discuss the use of relevant outcome measures
- standards to be set for a maximum of three working days from referral to first contact. First face-to-face contact within five working days
- integrated working between social services and the NHS in a multi-factorial falls programme
- demographic data to be considered for additional analysis
- future client satisfaction to be detailed using a validated outcome measure.

Conclusion

The project has generated wide interest locally and in view of the NSF milestones to develop integrated falls services by 2004 is well on its way to achieving them.

The project appears to be fulfilling its aims of supporting people in their own homes, preventing falls and maintaining independence. The data have supplied local practitioners and managers with a range of information, which can be seen to demonstrate an effective service,

albeit within a short time frame. There are future considerations, such as long-term plans for the service. A further 12 months' funding was initially secured, via social services, for the current post-holder and this has now been made permanent by South West Dorset PCT. However, this falls short of the overall recommendations. Integrated teams concerned with the implementation of the NSF have been supplied with the relevant information and are in the process of discussing the long-term funding issues. Thirty people from a range of statutory services have trained in evidence-based (chair-based) exercises for frail older people during the project timeframe, and subsequent integrated working in the form of multifactorial falls programmes within daycare settings is in the planning stage.

It is hoped, with this current evidence of good practice, to provide Dorset with an equitable service that meets the needs of the local population.

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