Falls and Balance Conference

7th September 2012

Michael Griffiths Building, Cardiff University
Heath Park, Cardiff

walesacpin@gmail.com
Programme

9:00    Registration

9:30.   Introduction

10:00.  Keynote speakers Anne Shumway-Cook and Marjorie Woollacott

11:00.  Coffee and posters

11:30.  Jackie Rigling RCP patient involvement audit on therapeutic exercise

12:30.  Lunch, posters, networking and trade stands

1:30.   Rebecca Townley and Rhian Dawson Carmarthen council falls service

2:15.   Sian Biddyr and Prof Rachel North. Role of vision impairment in falls.

2:45.   Facilitated Poster discussion

3:15.   Coffee, trade stands etc

3:45.   Facilitated Panel discussion

4:45.   Closing address.
Key Note Speakers

Marjorie Woollacott, PhD, is a Professor in the Department of Human Physiology and a member of the Institute of Neuroscience at the University of Oregon, Eugene, Oregon. She is well known for her research on balance control and rehabilitation in both neurologic populations, including children with cerebral palsy, and geriatrics, and has received numerous grants from the National Institute on Aging to study balance rehabilitation in these individuals. She has published extensively, and is coauthor of the book Motor Control: Translating Research into Clinical Practice. Her current research focuses on methods to improve balance and reduce falls when neurologic patients and older adults are in complex environments, and focusing on more than one task.

Anne Shumway-Cook, PT, PhD, FAPTA is a Professor Emeritus in the Department of Rehabilitation Medicine at the University of Washington, Seattle, Washington. Her research focuses on understanding the physiologic basis for balance and mobility disorders in neurologic and geriatric populations, and the translation of this research into best practices related to assessment and treatment of balance disorders. She has published extensively, and is coauthor of the book Motor Control: Translating Research into Clinical Practice. Her clinical practice focuses on treatment of adults with balance and mobility impairments; she has helped to develop a number of hospital and community evidence-based fall prevention programs.
Jackie Rigling

Jackie trained as a physiotherapist at King's College Hospital in London and has worked in London, Oxford, Bath and Kingston Jamaica and Cambridge.

Since September 2000 she has been working as Falls Prevention Co-ordinator with Cambridgeshire Community Services NHS Trust, to co-ordinate and develop sustainable evidence based practice for falls prevention and management in older people across health and social services, housing and voluntary sector.

In 2005 she became a member of the newly formed Falls and Bone Health steering group for the National Audit Programme with the Royal College of Physicians, London and in 2009 was appointed RCP Clinical Associate for Falls, leading on the Patient Involvement Programme.
Bex Townley, Carmarthenshire’s Health and Activity Coordinator, Older Adults. L4 Exercise Specialist

One of Bex’s role has been to develop an evidence based falls prevention exercise continuum in Carmarthenshire in leisure centre settings and in community venues.

In addition to her work with frailer older adults at risk of falls, Bex works in partnership with the NERS instructors to increase exercise opportunities extending specialist and clinical referral exercise pathways including stroke, TBI, neurological conditions, mental health and learning disabilities.

Her brief presentation today will provided a ‘potted history’ of the service development in Carmarthenshire, with particular focus on its developing links with physiotherapy teams; its more recent work on accessing isolated frailer older people, and its plans/potential to work closer with support/care teams in raising the 'move more often' messages.
Rachel North is a Professor of Optometry at Cardiff University. Her main areas of research are the early detection and monitoring of two of the major causes of visual impairment, ie diabetic retinopathy and glaucoma. Both these causes of visual impairment are age related and are potential risk factors for falls in the elderly.

It is known that older people with visual impairment are at increased risk of falling and this frequently leads to a hip fracture. This presentation will discuss the major causes of visual impairment in the elderly due to ocular pathologies, including cataract, glaucoma, diabetic retinopathy and age related macular degeneration. It will also outline the effect that these different ocular conditions have upon visual functions, such as visual acuity, contrast sensitivity, visual fields and depth perception.

The major cause of reversible visual impairment, that is frequently overlooked, is uncorrected refractive error which can be corrected simply by spectacles. The presentation reviews the effect of the different types of spectacle corrections on the risk of falls and outlines the management of the age related ocular conditions.
Abstract

‘Older people’s experiences of therapeutic exercise as part of a falls prevention service’

In March this year the RCP published findings from a national postal questionnaire which asked older people about their experiences of therapeutic exercise as part of a local falls prevention service. The questionnaire was sent to patients who had recently attended an NHS run exercise programme to reduce falls. 1,768 returned questionnaires were included in the analysis.

The patient questionnaire was supplemented by a survey of staff involved in the delivery of therapeutic exercise where these patients had attended. 100 completed questionnaires were included in the analysis.

This presentation focuses on the main findings of the questionnaires, which showed that there is wide national variation in the delivery of evidence based exercise to reduce falls in terms of type, frequency, intensity and duration. Overall, the types of exercises prescribed appear appropriate however the frequency, intensity and duration of most programmes are low and do not appear to meet recommended guidance.

The full report can be found at:-

http://www.rcplondon.ac.uk/projects/falls-patient-and-public-involvement
ACPIN Falls Conference

John Pathy Day Hospital

Abstract

Introduction

John Pathy Day Hospital has been running Falls Prevention Programmes since 2008 and joined the NLIAH 1000+ Falls Collaborative in 2011. The programmes incorporate a multi factorial assessment and intervention based on the NICE and RCP guidelines using validated outcome measures. Also included are the evidence based ‘OTAGO’ strength and balance exercises, ‘Home Hazard’ awareness sessions, Medical and Nursing review including postural blood pressure checks, culprit medication review, osteoporosis risk, continence status, visual and cognitive assessment. All patients who had attended the programmes were reviewed eight weeks after discharge.

Method

All patients referred to the Day Hospital were screened by the Multi Disciplinary Team and included if they met the criteria:

- Previous falls and/or fear of falling
- Ability to participate in the group

Two parallel programmes run, one specifically catering for the frail elderly

Results

At eight week review, patients reported the number of falls had reduced by over 2/3rds compared to the reported falls eight weeks prior to attendance at the programmes.

Discussion

Since joining the Collaborative we have refined our Data collection and recognised the need for a further programme for the very frail older person. We are now collecting data regarding prevention of A+E / Hospital admissions and aim to establish a central falls register to reduce duplication. Our programme has now expanded to include follow up via the OTAGO programme for a year following attendance. This has improved links with Community based projects. Communication via discharge letter has improved to include specifics falls data.
Preventing sight loss in older people: barriers and enablers to the uptake of regular sight tests
Sian Biddyr, RNIB Cymru
RNIB Cymru, Trident Court, East Moors Road, Cardiff CF24 5TD, 029 20449594, sian.biddyr@rnib.org.uk

Prevention Strategy

Introduction
Nearly 100,000 people in Wales are living with sight loss which has a huge impact on individuals and society (1). Nearly 50% of sight loss is avoidable given early detection and treatment, so a regular sight test is of utmost importance. Older people with sight loss are far more likely to have a fall, suffer from depression and become isolated (2).

Methodology
In 2010/11 RNIB Cymru carried out a research project to address eye health inequalities in Cwm Taf, Wales. The aim was:
• To consult low income communities to identify barriers and enablers to regular sight tests, specifically targeting those 60+ years as a group identified at high risk of preventable sight loss.

Eight focus groups (n=63) were carried out and the results were analysed with a researcher from Cardiff University.

Results
The main barriers to sight tests were identified as:
• The cost of glasses and feeling under pressure to buy glasses
• The public's perception of optometrists and effects on eye health behaviour
• Missing sight tests and purchasing off the shelf glasses
• Misunderstanding of the purpose and importance of sight tests
• Accepting sight loss as a natural part of ageing
• Uncertainty about the cost of help towards glasses

Discussion
Indentifying the barriers and enablers to sight tests for older people resulted in a range of interventions being designed. These involved practical actions that public health professionals, optometrists and others involved in delivering eye care services could use to help promote sight tests and reduce avoidable sight loss.

A full report has been published by RNIB ISBN 978 1 4445 0096 7

References
(1) Access Economics 2009: Future Sight Loss UK The economic impact of partial sight and blindness in the UK adult population. RNIB
‘Access to Transport’ for Community Based PSI Programmes
Bex Townley, Health and Activity Coordinator, Older Adults, Carmarthenshire County Council Prevention

Introduction
In Carmarthenshire’s rural areas, referrals from CRT’s were minimal due to lack of transport. A Health, Social Care and Well-Being Grant provided opportunity for partnership working with the voluntary sector (WRVS) for the provision of volunteer drivers for frail older people to access community based PSI sessions.

Method
Transport providers tender was undertaken and CRT’s/falls and frailty nurses informed. Referral liaison with WRVS undertaken by the PSI lead (Health and Activity Coordinator, Older Adults) as well as assessment and session delivery alongside qualified PSI’s of the National Exercise Referral Scheme. Assessments carried out at community venues and in the home (to ensure safe to mobilise in and out of car).

Results for Period; February – July 2012
No. referrals received from HP’s requiring transport = 42
No. patients benefitting from transport = 14
No. declining transport = 10
No. pending transport (end of funding imminent) = 12
No. participating in home based programmes = 3
No. pending home based programme = 3
Increase in referrals from CRT’s achieved. Three of the five community PSI venues serviced by transport provision

Discussion
The significant increase in referrals of home bound patient resulted in subsequent decrease in ‘take up’. Further work and discussion is ongoing with partners with regard to service development and strategies to support harder to reach patients. Transport is an ongoing problem that needs to be mainstreamed.
Introduction

Kidwelly General Practice undertook a desktop screening process to identify suitable patients for assessment into a PSI evidenced based falls prevention exercise programme. In collaboration with partners, the aim of the project was to utilise available short term funding to establish a sustainable community PSI session in the locality offering transport provision.

Method

- Stage 1 – Using the first three questions of the FRAT tool, desktop screening by the practice of all active patients identified 511.
- Stage 2 – Further screened to those ≥ 65yrs: n = 170 (housebound and hospitalised excluded).
- Stage 3 – Further screened to; those fallen in the past year and not requiring physiotherapy. Medication review undertaken, no contraindications to exercise present: n = 70
- Stage 4 – Invite to PSI assessment letter sent by the practice

Results

Planning to programme start = <3 months, patients responding to GP letter =24%, No. patients commencing programme = 12, No. drop out = 4, No. new referrals =6. All have reported benefits in confidence (Conf Bal and VAS tools), ability to rise from a chair without use of arms, and TUG. A sustainable PSI session established for HP’s to continue to refer into.

Discussion

Increasing ‘take up’ is a challenge (76% not responding to GP letter). For those that stay adherence is strong and significant benefits experienced.
Polypharmacy and falls: which pill is the culprit?

DR KHALIFA BOUKADIDA

Springfield day unit, falls prevention clinic. St Woolos Hospital, Aneurin Beaven health board, 0784674895/07412640264, boukalion@gmail.com

Introduction
Although falls are multifactorial, medications are a key risk factor which can be modified.

Objective
To assess whether medications review helped to reduce the frequency of falls and falls related injuries.

Methods
In a retrospective study, we randomly selected 50 patients between January 2011 and January 2012.

Results
The average age was 73 years. 86% of patients were on four or more concurrent medications. 34% were on psychotropic drugs, 42% were on ACE-I, 34% were on betablocker, 24% were on diuretics, 24% were on Calcium-Channel-blockers and 34% were on opioids. Medications induced dizziness was documented in 62% of cases and Postural hypotension was confirmed in 42%. More than two third of subjects had their medications modified. Among those who were on antidepressants, the dose was lowered in 25%. One third of patients on ACE-I had the timing of their medications changed. 19% of patients on diuretics had their medications withdrawn.
The intial drugs modification was communicated to general practitioner and we recommended reviewing the long term need of medications contributing to falls. On follow up 26% of patients had the total number of their medications decreased. The overall reduction of falls frequency and falls related injuries was 84%.

Discussion
Our experience showed that withholding or lowering dose of drugs is effective however a larger prospective study is needed to implement clearer guidance regarding prescribing medications in elderly fallers. Introducing blood pressure monitoring and medications review diary are useful tools to ensure safer prescribing practice.
Fracture liaison nurse pilot: halving the risk of a subsequent fracture

Ryan A, Culley C (Cardiff and Vale UHB)

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Prevention

Background to the project
Osteoporosis (low bone mineral density) is a common disease affecting 1:2 women and 1:5 men over 50. A low trauma fracture is an opportunity to screen for osteoporosis, providing appropriate lifestyle and falls prevention information and advice. Bone sparing treatment cuts the risks of a future fracture by a half and is a cost-saving intervention.

A previous UHB 12 month audit showed that only 5% of patients over 70 were screened following a fracture.

Aim of project
- Demonstrate that a fracture liaison nurse would improve the care of patients following a low trauma fracture.

Development
Patients fitting the criteria for a bone scan were contacted by the nurse and screened for osteoporosis and falls risks. If fitting the criteria, the patient was offered a bone scan; making informed choices through the information and advice provided, including diet, exercise and smoking cessation referral. The GP was advised of the scan result and treatment options.

Proven or anticipated outcomes
During the pilot, 99% of patients were screened for osteoporosis risk factors with self-management of osteoporosis promoted. Falls prevention advice was offered with risk modification aiming to improve patient safety. On-going evaluation of the service demonstrates high levels of satisfaction from patients.

Conclusions
The fracture liaison nurse service is a straightforward, evidence-based process to identity patients with osteoporosis, who are then advised and treated to prevent a secondary fracture, including hip fractures and reduce falls risks. There are recognised financial cost savings and an improved patient experience.

Prevention RyanA
Promoting best practice and preventing harm:  
the interdependency of falls, restraint and speciallling

Shanahan D, Ryan A (Cardiff and Vale UHB)

Cardiff Locality Office, Trenewydd, Fairwater Road, Cardiff, 02920552212, 
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Prevention

Background to the project
Patient safety and quality is a priority for Cardiff and Vale University Health Board (UHB). In-patient falls is the highest reported Clinical incident. Safety must be balanced with patient autonomy with a proportion of patients who lack mental capacity to weigh up the risks and benefits of mobilisation and associated risks of harm from falls.

Aim of project
To promote best practice and preventing harm through the delivery of effective medical, nursing and therapeutic interventions, underpinned by interdependent UHB resources.

Development
The Vulnerable Adult Risk Management Working Group is committed to improving the care of vulnerable adults by undertaking thematic analyses of serious clinical incidents, complaints, protection of vulnerable adult referrals, sentinel events and best practice, professional and legislative changes, in order to develop ‘tools’ to support and improve practice.

Proven or anticipated outcomes
Interdependent resources for the use of restraint with mentally incapacitated patients, the prevention and management of falls and assessing and prescribing special levels of nursing observation in general adult wards have been developed and launched cohesively; the launch event received a 95.5% overall positive evaluation.

As yet it is too early to demonstrate proven outcomes but improved delivery of care to vulnerable patients has been facilitated. Auditing of the incidence of falls and subsequent harm will be undertaken at Division level utilising Datix and the Ward Safety Dashboard.

Conclusions
These resources were developed to support clinical staff to improve patient safety whilst promoting and protecting individual autonomy.

Prevention ShanahanD
Spectacle lenses and falls

Anita Morrison-Fokken, Dr Mark C.M.Dunne, Dr. Colin W. Fowler

School of Life and Health Sciences, Aston University, Birmingham, B4 7ET, morrisa4@aston.ac.uk

Prevention

Introduction

It is widely acknowledged that falls in the elderly have a significant impact on both health and social care economies. It has been reported that “multifocal” spectacle lenses increase the risk of falls by:

- decreasing edge contrast and depth perception (Lord, Dayhew, & Howland, 2002)
- reducing toe clearance when navigating stairs or steps (Timmis, Johnson, Elliott, & Buckley, 2010)
- blurring vision (Buckley, Heasley, Twigg, & Elliott, 2005)

We found many studies have not differentiated between these optically very different lens designs.

When negotiating obstacles our gaze has been found to be targeted at a distance of approximately 2 steps ahead (Patla & Vickers, 2003). In order to ascertain the amount of focus/defocus when using bifocal, trifocal or PALS, it is important to determine whether the gaze fixation at this distance is achieved by head movement only, eye movement only, or a combination of the two.

Method

We have developed a lightweight prototype eye-head movement tracker system in order to record these head-eye movements for analysis of the eye position relative to the spectacle lens. It will then be possible to calculate the level of blur or depth of focus for any one individual.

Results

Preliminary results will be shown to demonstrate the validity of this method.
LIFT (LOW IMPACT FUNCTIONAL TRAINING) AN INNOVATIVE AND SUCCESSFUL ACTIVE AGEING PROGRAMME BY AGE CYMRU FOR OLDER PEOPLE IN WALES

Glenn Little
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Exercise

Introduction

LIFT is a series of activities and games designed to get more older people taking part in physical activity in a local environment. Using safe seated exercises that are used during our active daily lives. It is activity that contributes towards a person’s health and wellbeing in a safe and sociable format. It is designed to be used in a variety of community settings.

Method

The training course was piloted with potential LIFT leaders and adjustments were made to the planning of the delivery of the training programme. The training course consists of four days training to enable participants to deliver the session safely and effectively in a local area. Resources produced including manuals, music, games equipment and other resources. In many areas the use of volunteers to deliver LIFT as an alternative to gym based exercise sessions and as a local low cost physical activity that has proved suitable for many older people. The strategy is that it is suitable for people who take part in the courses to be active and attend the sessions for the long term, helping to contribute towards improving their physical, social and mental wellbeing on an ongoing long term basis.

Results

Over seventy five people trained to deliver LIFT sessions locally. Weekly, fortnightly and monthly sessions delivered in a variety of locations from community centres, church halls and care and residential homes. Eight LIFT courses delivered, one cascade course and three sub cascade courses delivered. Over four thousand LIFT experiences completed per year.

ExerciseLittleG2
LIFT (LOW IMPACT FUNCTIONAL TRAINING) AN INNOVATIVE AND SUCCESSFUL ACTIVE AGEING PROGRAMME BY AGE CYMRU FOR OLDER PEOPLE IN WALES

Glenn Little
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A service evaluation to explore the experiences of both younger and older people issued with a fall detector

Louise Prothero
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Service Evaluation/Improvement

Introduction
Automatic fall detectors are widely used, however the literature states that that views on such devices are mixed, and that little has been published on the practicality and acceptability to end users (Ward, Holliday, Fielden and William, 2012).

Method
The research design was longitudinal and qualitative. Three semi-structured interviews were conducted over six months to evaluate the experience of 20 people issued with fall detectors as part of their existing care package.

Results
Positive themes which emerged from the evaluation included participants' experience of the service, the reassurance, independence, and confidence which wearing a fall detector can bring, and the potential of fall detectors to reduce long lies. Negative themes included compliance and acceptance of the fall detector, their design and comfort, fall detector reliability, and a lack of awareness of the services available.

Discussion
Overall, participants were pleased with their experience of the service and felt that that the positive aspects of wearing a fall detector outweighed any negative aspects. The design and comfort of the fall detectors, and the frequency of false positives occurring, were factors which contributed to low use or abandonment of the service. Participants were concerned that there was a lack of awareness of fall detectors and of Telecare in general from both the public and practitioners. They urged that there needed to be an increase in awareness raising activity and publicity in order to make the services available more well known.
Development of A Community Based Falls Prevention Service on Anglesey

Jane Boyd, Marie Thorne, Louise Cartner.

Betsi Cadwaladr University Health Board, Ysbyty Penrhos Stanley, Holyhead, Anglesey, LL65 2QA, 01407 766066, Jane.Boyd@wales.nhs.uk

Service Evaluation/ Improvement

Introduction
A pilot study completed in Amlwch (Anglesey) found a multi-disciplinary community based Falls Prevention service significantly improved physical function, self-efficacy, self-determined physical health and continuing some form of physical activity post-intervention. With these positive results, the service developed to encompass the entire island, with an increasing referral rate into the service (1796 referrals to date), increasing number of venues (currently 18) and the total number of 32 week programmes completed standing at 42.

Methods
The established service expanded throughout the island of Anglesey by promotion at public and professional events. The service includes referral from health and non-health professionals. This was followed by a multi-factorial risk assessment (MRA) including assessment of; home environment, medical history, physical function, falls inventory, falls efficacy and quality of life. Appropriate referrals were made post assessment and if applicable, the patient was invited to a 32 week evidence based exercise intervention delivered by a qualified Postural Stability Instructor (PSI). The number of self-reported falls were collected for the year prior to the intervention and for the following year.

Results
The Service has continued to grow with increasing number of referrals and assessments being completed. Also, the number of self-reported falls in one class had reduced by 84% from pre to post-intervention.

Discussion
With continued application of the community based Falls Prevention Service pathway, a reduction in the number of self-reported falls has been witnessed within the community dwelling population that have completed the 32 week PSI exercise intervention.

Service Evaluation/ Improvement BoydJ3
Community Based Postural Stability Instruction (PSI) Programme
Bex Townley, Health and Activity Coordinator, Older Adults, Carmarthenshire County Council
Case Study

Introduction
In a 12 month period, 30% of referrals received into the National Exercise Referral Scheme were aged ≥ 65. Almost half of these were received from ‘non-GP’s’ i.e. from physiotherapy services (cardiac rehab, pulmonary rehab and CRT’s) n=229. 10 of these referrals were aged ≥90. This short study reports the promising improvements made by a 92 year old lady participating in evidence based (PSI) falls prevention programme in the community.

Method
- **Referral route:** received by falls assessor following a falls prevention awareness event.
- **Assessment process:** pre-exercise health (inc. contraindications to exercise) screening, health and lifestyle questionnaire and functional assessment.
- **Functional assessments:** TUAG/TUSS/Turn 180/30 second sit to stand/SLS
- **Intervention:** Attending PSI evidence based programme once per week (mobility, dynamic endurance, dynamic balance, targeted strength, flexibility and adapted tai chi) plus patient performs some of the exercises at home.
- **Adherence:** 100% attendance, £1.50 per session paid

Results
Improvements shown in all areas assessed plus increase tolerance to maintain upright unsupported seated posture reported.
TUAG: baseline = 36s +2 sticks; re-assessment at 3 month=to 31s 0stick
Sit to stand in 30s: baseline = 2 requiring use of arms; re-assessment at 3 months = 6 no assistance

Discussion
Regardless of age, improvements in strength and balance can be achieved. Even small gains in strength and balance skills can potentially increase thresholds of function for frailer older adults, at a relatively small cost to services.
Patients’ experiences of exercise-based falls prevention: The building of autonomy, competence, and relatedness

Laura Thomas, Dr Joanne Hudson, & Dr Emily J. Oliver.

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Case study

Introduction
Satisfaction of basic psychological needs is proposed to underpin the internalization of motivation for physical activity (Self-Determination Theory: Deci & Ryan, 2000). This may be salient in an older population who can experience age related need thwarting. Physical activity interventions can increase need satisfaction, however, the mechanisms by which this occurs are not fully understood. In-depth longitudinal case studies may help to clarify how need satisfaction occurs in older participants throughout an exercise programme. This work presents case studies of individuals’ experiences during a 32 week Postural Stability Instruction programme.

Method
Six programme participants (78-89 years, FRAT scores from 1-3) were interviewed at programme commencement, weeks 10-11, 20-22, 30-32, and post programme. In interviews they discussed exercise, attitudes towards the class and physical activity, perceptions of need satisfaction, and their physical identity.

Results
Participants’ narratives highlighted a range of sources of need satisfaction (e.g., relatedness – instructor support; autonomy – becoming uninhibited by their physical self and able to grow, develop, and contribute; and competence – being able to do daily activities/tasks lost to them previously). Participants emphasised the personal salience of changes in different needs, however, it was notable that competence appeared important for all patients.

Discussion
Sources of need satisfaction were generally consistent with previous literature. Taken as a whole, the narratives support need satisfaction as one mechanism through which development of a physically active identity is facilitated. PSTI programmes may satisfy different needs for different individuals by supplementing needs thwarted in other areas of participants’ daily lives.

CaseStudyThomas1
Analysis of a multi-factorial assessment for those that have fallen or are at risk of falling: a pilot study

Dr Paul Jarvis, University of Glamorgan.
Prof Rachel North, University of Cardiff.
Prof Joyce Kenkre, University of Glamorgan

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Research

Introduction
This study analysed data collected at a Falls Clinic that uses a multi-factorial unified falls assessment of physical and mental attributes. Case notes were reviewed to investigate the predictive risk factors for falls and how these relate to patient outcomes, with a particular focus upon vision.

Method
Descriptive statistics were used to classify common issues that were identified in the initial multi-factorial assessment and these were contrasted with issues subsequently highlighted during a falls clinic appointment by the consultant geriatrician specialising in falls. Inferential statistics were used to identify patient features that were associated with falling multiple times.

Results
There is great variation in the extent to which different types of issue are identified as being risk factors prior to the clinic appointment. Vision issues and muscle/skeleton issues are the most common major factors within this sample, yet these are identified in advance at rates of 95% and 23% respectively. Cognitive issues are among the factors that are most significantly associated with falling multiple times, while there are other trends that appear suitable for further investigation.

Discussion
Results provide useful information to create a properly powered subsequent study that may establish some of the trends that are not statistically significant, for example that those with vision issues are multiple fallers. A larger sample size would also allow investigation of the effects of different types of vision issue as this dataset contains very few examples of each type.

Research JarvisP
Functional and Psychological Changes during a 32 Week Postural Stability Training Course in Older Adults

Dr Emily J. Oliver, Dr Joanne Hudson, & Laura Thomas.
Physical Activity in Ageing, Rehabilitation, and Health Research Group, Department of Sport & Exercise Science, Aberystwyth University.

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Research (Exercise intervention programme).

Introduction
Older people who have fallen face barriers to physical activity due to psychological factors (e.g., fear of falling, activity avoidance, and lost confidence). Key contributors to maintaining physical activity include developing an identity consistent with being physically active, but this process is unexplored in falls patients. Previous work fails to consider the impact of intervention programmes on the full range of relevant psychological outcomes. In collaboration with partners from Betsi Cadwalader University Health Board, and the National Exercise Referral Scheme, this study explored functional and psychological changes in individuals on a Postural Stability Instruction programme.

Method
Six programme participants (78-89 years, FRAT scores from 1-3) were interviewed and completed psychological measures: Balance Confidence; Falls Efficacy; Quality of Life, and, Exercise Identity. Measures were completed at programme commencement, weeks 10-11, 20-22, 30-32, and post programme.

Results
Participants significantly improved their functional ability over the 32 week programme, developed a more robust exercise identity and became more confident. Patients discussed a renewed sense of purpose, enhanced physical capacity, confidence and self-esteem, an improved social environment, and greater independence.

Discussion
This provides support for the BCUHB 2010-2015 strategy, including shifting provision from hospital to community settings, and for preventative schemes to be based on available evidence. Extended programmes are needed considering the psychological fluctuations observed in early programme phases. Programme participants were frail and some were fallers; thus expanding provision to those pre-risk of falling may offer greater preventative impact and associated healthcare savings.