

About this physical activity session

Background

This educational package was developed to assist physiotherapists and occupational therapists to facilitate a workshop or seminar with residential care staff to raise awareness of the many benefits that physical activity brings for residents of aged care settings. The package is designed to be used by people without a background in education or training, but who do have specialist knowledge in physiotherapy or occupational therapy and aged care.

Residents, carers and families should be supported and involved in the planning and implementation of the program.

How to use this package

The package is intended to be delivered as a short, informal seminar or workshop, usually over two hours. Participants would normally be staff members of a residential care setting who work directly with residents.

The package is designed to ensure that the session leader has a clear and logical program to follow and to limit the amount of additional preparation required to deliver the session. The program is divided into two modules that can be delivered as one session over two hours or two sessions of one hour each.

Aim

This program aims to ensure that residents of residential care settings have opportunities for appropriate levels of physical activity. This will be achieved by providing staff with the information to develop physical activity strategies.

Participants

Participants in the program could include:

- Division 1 and 2 nurses
- personal care attendants
- activities coordinators and assistants
- therapy staff
- any staff member who works in a direct care role.

Participants in the program may range from very experienced to inexperienced or from highly qualified to having minimal formal education. Try to find out about the background of the group before the session. At the beginning of the session, ask some questions of the whole group to get a feel for their understanding of the topic.

Learning objectives

At the end of the seminar, participants should be able to:

- discuss the benefits of physical activity for older people in residential care settings
- apply this knowledge to case examples of individual residents
- propose opportunities to increase residents' physical activity levels in their own facilities.

Preparing for the session

Prior to conducting the session, ensure that:

- there is support from management to run the program
- all staff who will be attending are able to take time off from their regular duties
- management will be interested in, and supportive of, ideas generated by participants.

The best workshops are those:

- that have been developed in response to an identified need
- where program participants feel they have some ownership over the program (for example, they have been involved in deciding that the program was needed)
- where program participants have been consulted about how the program could be run
- that are interactive and involve participants
- that have some tangible outcomes (such as an action plan; lists of ideas to be implemented; practical strategies for working with real case examples).

Equipment/environmental requirements

To run this session, you will need:

- overhead projector (or if one is not available, sufficient photocopies of the slides to be used as handouts)
- a room large enough to hold the group seated in a circle and allow for small group work
- tea/coffee making facilities (morning or afternoon tea)
- butchers paper or whiteboards and marker pens (for each small group).

Suggested session format

Module	Content (what will be taught)	Method (how it will be taught)
One Introduction (up to 10 minutes)	Explain seminar aims, learning objectives, why this is an important topic and why the seminar is being offered.	Use brief explanatory comments
Presentation (no more than 20 minutes)	Overview current trends in thinking and key research findings: <ul style="list-style-type: none"> • benefits of physical activity • types of physical activity • key clinical considerations • inhibitors and motivators 	Use the prepared overheads and/or handouts : <ol style="list-style-type: none"> 1.1 Session overview 1.2 Definitions of physical activity 1.3 Types of physical activity 1.4 Need for diversity 1.5 Potential benefits of physical activity 1.6 Effects of lack of physical activity 1.7 Activity levels in residential care facilities 1.8 Functional Incidental Training 1.9 Motivators for physical activity 1.10 Physical activity and hip protectors
Case examples discussion (15 minutes approx)	Demonstration of the positive effects of physical activity	Question whole group: Can you think of some cases where older people have benefited by improving their physical activity levels? Use examples from your own experience.
Tea/coffee break		
Two Application of seminar information (allow at least 30 minutes)	This module should provide an opportunity to: <ul style="list-style-type: none"> • apply theoretical information from earlier presentation • use case study examples to identify enablers and barriers to improving the physical activity levels of individual residents • identify practical issues concerned with participants' own facilities. 	Resource 2.1 General issues for discussion. Following brief group discussion , break up into groups. Handouts of case studies as a basis for discussion (use the following, prepare your own or use real case studies) Each group to work through the steps identified for case example Resources: <ol style="list-style-type: none"> 2.2 Case studies – points to consider 2.3 Case studies 1 and 2 2.4 Case studies and questions 2.5 Case study template (for groups to develop own case study) Each participant should record the outcomes of their group's discussion on the handouts. Alternatively, use butcher paper or overhead transparencies for recording.
Report back and summary (allow 30 minutes)	Present strategies discussed in small group sessions relating to case studies (real or provided)	Member of each group to present a summary of their strategies. Facilitator to draw together main themes. Record themes on whiteboard and prepare as minutes/seminar notes for each participant. Conclude the seminar by revisiting the learning objectives. Hand out the feedback form to each participant.

Module 1

Theory of physical activity

- **definitions of physical activity**
- types of physical activity
- benefits of physical activity
- key clinical considerations
- inhibitors and motivators
- case studies

The definitions of physical activity have broadened.

Early 1990s (focus on cardiovascular fitness):

- 30–45 minutes moderate to high intensity activity 3–5 times per week (*American College of Sports Medicine Guidelines*, 1990).

More recently:

- Daily accumulation of 30 minutes of health promotion activities (including active tasks such as raking leaves, walking or taking part in active leisure pastimes) of moderate intensity are now considered sufficient to achieve beneficial health outcomes (*Surgeon General's Report on Physical Activity and Health*, US Department of Health and Human Services, 1996).
- Similar definition adopted by Active Australia, with broad focus including both structured and incidental activity.

A new term is now being used more widely: 'active living'.

Active living:

The term active living has been used to refer to the changed definition of what is required in terms of physical activity to achieve positive health benefits. Key components of the new definition include:

- that the physical activity does not need to be concentrated into one session, but can be accumulated throughout a day
- that health promotion activities of moderate intensity are required to achieve positive benefits (previously considered to require moderate to high intensity aerobic activities)
- that the activity need not come under the formal umbrella of exercise, but may be activities of interest or fun which have a physical component, for example, walking, ballroom dancing, indoor carpet bowls.

- definitions of physical activity
- **types of physical activity**
- benefits of physical activity
- key clinical considerations
- inhibitors and motivators
- case studies

Types of physical activity include:

- walking (mobilising), shopping
- gardening activities
- leisure pursuits (bowls, golf, bocce)
- formal exercise programs
- personal activities of daily living
- others.

Many changes can be achieved in lifestyle, for example, walking instead of driving to the shops or walking sometimes instead of relying exclusively on a wheelchair.

It is important to remember that there is a need for diversity:

- Low care facilities may have residents with very different needs to those of high care facilities.
- Within each type of facility there will be a range of individual abilities and preferences.
- The location of the facility may also make a difference, for example there may be differences in the activities and community resources available in rural and metropolitan areas.

- definitions of physical activity
- types of physical activity
- **benefits of physical activity**
- key clinical considerations
- inhibitors and motivators
- case studies

Potential benefits of physical activity (World Health Organisation 1997)

Physiological benefits

- immediate benefits
 - improved regulation of blood glucose levels
 - stimulation of adrenalin and noradrenalin levels
 - better quality and quantity of sleep.
- long term improvements in:
 - cardiovascular function and endurance
 - muscle strength and functional independence
 - muscle and joint flexibility
 - balance and coordination
 - speed of movements.

Psychological benefits

a) immediate benefits

- relaxation
- reduction in stress and anxiety
- enhanced mood states.

b) long-term improvements in:

- general wellbeing
- mental health, including reduced depression and anxiety
- central nervous system processing and reaction time
- fine and gross motor performance.

Social benefits

a) immediate benefits

- empowering older individuals and assist them in playing a more active role in society
- enhanced social and cultural integration.

b) long-term effects

- enhanced integration within the individual's social milieu
- formation of new friendships
- widened social and cultural networks
- role maintenance and new role acquisition
- enhanced inter-generational activity.

Effects of lack of physical activity/deconditioning

- general health
- psychological
- social
- hospital/nursing home admissions
- mortality.

Specificity of training

Some of the health benefits associated with physical activity appear to be generic across a range of types of physical activity. For example, some of psychological benefits of reduced anxiety or depression may be achieved by participating in a walking program, a formal strength training program, or a hydrotherapy (exercise in water) program. However, specificity of training refers to the way that some health benefits will only be achieved by incorporating a certain type of activity into a person's physical activity program. For example, a walking program for older people has been shown to be effective in improving a number of cardiovascular fitness measures, but may not improve a person's balance performance.

- definitions of physical activity
- types of physical activity
- benefits of physical activity
- **key clinical considerations**
- inhibitors and motivators
- case studies

Activity levels in residential care facilities

Studies by Ruuskanen & Parkatti (1994) and Ruuskanen & Ruoppila (1995) indicate that:

- 40 per cent of residents do no more than essential for daily activities
- 13 per cent of men and 11 per cent of women perform activity to level of breathlessness more than once weekly

- walking is the most commonly performed physical activity (40 per cent of men and 31 per cent of women walk indoors daily).

Functional incidental training

A 1995 study by Schnelle et al. used a sample of cognitively and/or mobility impaired nursing home residents. The sample was randomly allocated to one of two groups:

- prompted voiding (four-hourly)
- prompted voiding plus functional incidental training (FIT) which involved walking, sit to stand, transfer practice.

They found that:

- both groups achieved significant reduction in agitation
- the FIT group achieved significant improvement in walking and standing endurance.

- definitions of physical activity
- types of physical activity
- benefits of physical activity
- key clinical considerations
- **inhibitors and motivators**
- case studies

Motivators for physical activity

- Knowledge that change is able to be achieved.
- Encouragement from key people, including carers and families.
- Enjoyable/social/functional contexts.
- environment/procedures are conducive to physical activity.

Inhibitors of physical activity

- Co-morbidities influencing physical activity participation
 - sensory loss
 - falls
 - arthritis
 - cognitive impairment
 - other.
- Structural layout of residential setting.
- Lack of positive reinforcement.
- Stage of change model (ranging from those who are not interested through to those who are ready and prepared to engage in an activity).

Stage of change model

There have been several models proposed in attempting to understand the key factors involved in achieving change in health related behaviours. One of these is the Stage of Change model, which identifies five stages that may describe an individual's potential for change at any given time. These are:

1. Pre contemplation, where there is no thought or intention to participate in physical activities.
2. Contemplation, where the individual gives some thought to becoming more active sometime in the future.
3. Preparation, where information is obtained about local activities, or clothing or equipment are acquired for use in physical activities.
4. Action, where the individual actively participates in sport, recreation, regular walking or other physical activities.

5. Maintenance, where the individual maintains these physical activities for six months or longer.

The 1997–98 Active Australia Physical Activity survey identified that almost 56 per cent of Victorians living in the community who were surveyed were classified as in the action stage. This analysis has not been conducted in aged care residential settings, but given the activity levels in these settings reported (see literature review), the proportion of residents in the action stage is likely to be far lower. Nonetheless, conceptually it is important to understand each individual's stage of change level, as this will impact on the type of messages or actions needed to progress towards the stages of action and maintenance. It is also important to consider how carers and families may support the resident at each stage.

Physical activity and hip protectors

Lauritzen et al. (1993) reported on a randomised controlled trial in a nursing home setting which found a marked reduction in hip fractures when hip protectors were used. This is despite an increased rate of falls in women in the experimental group compared to women in the control group (the fall rate of men was greater in the control group).

Importantly, the use of hip protectors appears to have resulted in improved confidence of staff/residents in relation to mobilising.

- definitions of physical activity
- types of physical activity
- benefits of physical activity
- key clinical considerations
- inhibitors and motivators
- **case studies**

Facilitators are encouraged to discuss examples where residents have experienced physiological, psychological or social benefits through increasing physical activity. Participants may also be able to provide some examples.

Module 2 - Application

Case studies for use in small groups

While the messages about increasing the physical activity levels of residents might be clear, in reality, staff may feel that there are many barriers for them in implementation. This module is designed to allow staff to identify barriers and enablers for this practice.

The learning objectives are based on practical application of the seminar content. Therefore, the program uses case studies as prompts for discussion and problem-solving. It is suggested that groups work on two case studies during the small group exercise. Two cases studies are included in the package. Facilitators are also encouraged to use their own, and/or to allow participants to use a real case study (a template is included).

It is suggested that the facilitator present the case studies and pose some questions to be discussed in small groups of 3–5 (depending on the size of the group).

Prior to breaking up into small groups, pose these general questions for a brief discussion involving the whole group. These issues are useful to keep in mind during the small group exercise.

General issues for discussion:

- How well are residents' interests in terms of physical activities (past and present) known by staff?
- What types of incidental and structured physical activities are currently incorporated into daily programs, and what scope is there for flexibility?
- How can carers/families be involved in supporting residents to increase activity levels?

Break the group into small groups of 3–5. Allow approximately 30 minutes for the groups to discuss the case studies according to the questions posed for them. Ensure that the group has a task to produce a basic plan to improve the activity levels of each of the case study examples. Handouts/overheads are included in the package for this purpose. Participants should be encouraged to record notes. Allow sufficient time for each group to report back to the whole group.

For each case study, ask the small groups to consider the following points:

1. What are some possible options for improving the older person's activity level?
2. What are some of the potential barriers to these options, and how might they be dealt with?
3. What are the implications for staff and residents if some of the proposed options were to be implemented?
4. Are there specific issues that have not been addressed in these case

presentations that need to be considered?

5. Prepare a basic plan for increasing the resident's activity levels.

Be prepared to allow for group discussion after or during this report-back session. It is important, however, that each group develops something tangible that could be applied in their practice. If possible, collect these at the end of the seminar and arrange for them to be compiled and given back to each participant (and management of the facility if agreed by the group).

Conclusion

Apart from the information about the seminar to be collected in the feedback form, you will need to check that the learning outcomes have been achieved prior to bringing the seminar to a close. You should be able to gauge this from the work of the small group session. If you feel that the group has not grasped the concepts satisfactorily, then it may be necessary to discuss what else may need to be done to meet the learning objectives. These are, that participants should be able to:

- **discuss** the benefits of physical activity for older people in residential care settings
- **apply** this knowledge to case examples of individual residents
- **propose** opportunities to increase residents' physical activity levels in their own facilities, including ways that involve families/carers in supporting residents.

Evaluation

It is important to obtain feedback about the program. A feedback format is included here for that purpose.

Distribute the form at the conclusion of the seminar, and allow about ten minutes for the forms to be completed. Participants should have the option of completing the evaluation anonymously.

Physical activity: feedback form

1. Was this seminar relevant to your work? (tick one only)

- highly relevant
 relevant
 limited relevance
 no relevance

2. Was this seminar relevant to this type of facility? (tick one only)

- highly relevant
 relevant
 limited relevance
 no relevance

3. How much do you feel you learnt from this seminar about incidental activity for residents? (tick one only)

- learnt a great deal
 learnt some new information
 not much was new
 learnt nothing new

4. Is this a useful way to access information? If yes – why? If no – why not and what other ways would be more useful?

5. Have you (or will you) use any of the information from this seminar in your work? Please describe.

6. How could the seminar be improved?

7. Would you recommend this as a useful seminar for other facilities?

- recommend highly
 recommend
 not recommend

8. Do you believe that your facility needs to change its practice to improve residents' levels of physical activity?

If yes, in what ways?

9. Please describe any difficulties or barriers to making these changes.

10. Any other comments?

Thank you

Resource 1.1

Session overview

- What is physical activity?
- Potential benefits of physical activity for older people
- Research evidence relating to health improvements
- Factors contributing to participation (or not) in physical activity
- Opportunities for case study discussions

Resource 1.2

Definitions of physical activity

Early 1990s

- Recommend 30-45 minutes moderate to high intensity activity, 3-5 times a week
- Focus on cardiovascular fitness

Recent

- Recommend to accumulate 30 minutes a day of moderate intensity activity
- Includes structured and incidental activity
- New term – ‘active living’

Resource 1.3

Types of physical activity

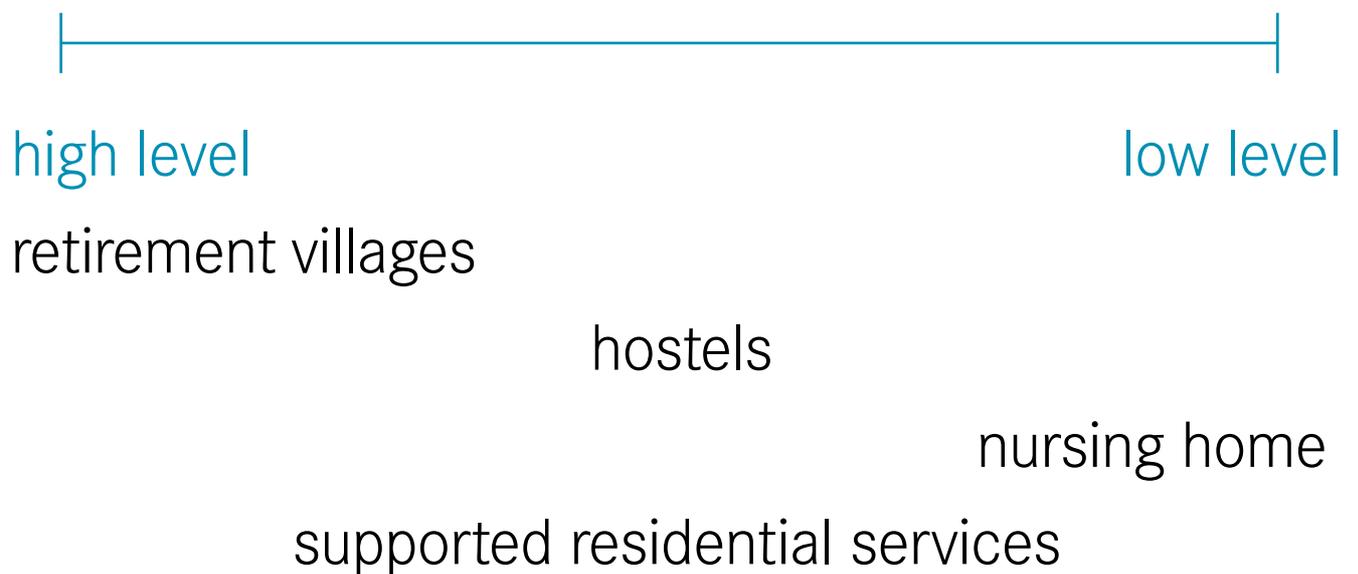
- Walking (mobilising), shopping
- Gardening
- Leisure – such as bowls, golf
- Formal exercise programs
- Activities of daily living
- Other

Consider changing lifestyle – walk instead of driving or using a wheelchair

Resource 1.4

Need for diversity

Spectrum of physical activity capacity



Consider

- range of settings – low care to high care
- range of individual abilities and preferences

Resource 1.5

Potential benefits of physical activity

(World Health Organization 1997)

Physiological benefits

Immediate benefits

- Improved regulation of blood glucose levels
- Stimulation of adrenalin and noradrenalin levels
- Improved quality and quantity of sleep

Long term improvements (specificity of training)

- Cardiovascular function and endurance
- Muscle strength and functional independence
- Muscle and joint flexibility
- Balance and coordination
- Speed of movements

Resource 1.5

Potential benefits of physical activity

(continued)

Psychological benefits

Immediate benefits

- Relaxation
- Reduced stress and anxiety
- Enhanced mood states

Long term improvements

- General wellbeing
- Mental health, including reduced depression and anxiety
- Central nervous system processing and reaction time
- Fine and gross motor performance

Resource 1.5

Potential benefits of physical activity

(continued)

Social benefits

Immediate benefits

- Empowers people and helps them play a more active role in society
- Enhanced social and cultural integration

Long term effects

- Improves integration with social milieu
- Forms new friendships
- Widens social and cultural networks
- Maintains role and takes on new role
- Enhances inter-generational activity

Resource 1.6

Effects of lack of physical activity

- General health
- Psychological
- Social
- Hospital/nursing home admissions
- Mortality

Resource 1.7

Activity levels in residential care facilities

(Ruuskanen & Parkatti 1994; Ruuskanen & Ruoppila 1995)

Of residents:

- 40% do no more than needed for daily activities
- 13% men and 11% women perform activity to level of breathlessness more than once a week
- Walking is the most common activity – 40% men and 31% women walk indoors daily

Resource 1.8

Functional Incidental Training (FIT)

(Schnelle et al. 1995)

Sample of cognitively and/or mobility impaired nursing home residents.

Randomly allocated to:

- prompted voiding – 4-hourly
 - prompted voiding and FIT (walking/sit to stand/transfer practice after prompted voiding)
-
- Both groups significantly reduced agitation
 - FIT group improved walking and standing endurance

Resource 1.9

Motivators for physical activity

- Knowledge that change can be achieved
- Encouragement from key people, including family and carers
- Enjoyable/social/functional contexts
- Environment/procedures are conducive to physical activity

Resource 1.10

Physical activity and hip protectors

(Lauritzen et al. *Lancet*, 1993, 341:11–13)

- Randomised controlled trial in a nursing home setting
- Marked reduction in hip fractures in hip protector group
- Use of hip protectors appears to have improved confidence of staff and residents in relation to moving around

Resource 2.1

General issues for discussion:

- How well are residents' interests in terms of physical activities (past and present) known by staff?
- What types of incidental and structured physical activities are currently incorporated into daily programs, and what scope is there for flexibility?

Resource 2.2

Case studies – points to consider

1. Possible options for improving the older person's activity level.
2. Potential barriers to these options and how might they be addressed.
3. Implications for staff and residents if options were to be implemented.
4. Specific issues that have not been addressed in these case studies and need to be considered.
5. Prepare a basic plan for increasing the resident's activity levels.
6. How can carers/family be involved to support increased physical activity among residents?

Resource 2.3 Case studies 1 and 2

Case Presentation No.1

Mrs B.

Profile:

Mrs B is an 83 year-old lady of Italian background, speaks fluent Italian and limited English.

She has been at this facility for seven years, and is having increasing difficulty with her walking and some falls.

Main medical past history:

Osteoarthritis in the hips, knees and back, diabetes (controlled by diet), peripheral neuropathy, bilateral cataracts (had successful surgery on right eye, awaiting surgery on left eye).

Current mobility:

Walks short distances indoors independently with single stick in right hand.

Cognition:

No problems.

Interests:

Previously enjoyed gardening, spending time outdoors, bocce, and long walks (doesn't do any of these now). Enjoys craft work such as knitting, sewing (also problems now because of impaired vision).

Case Presentation No.2

Mr L.

Profile:

Mr L is 78 years old and moved to this facility three months ago.

Main medical past history:

Duodenal ulcer, hypertension, urinary frequency, mild left sided stroke three years ago (resulting in a mild limp), Alzheimer's Disease, poor sleep pattern (dozes during the day, restless at night).

Current mobility:

Walks briskly independently, no walking aid, mild limp. Poor monitoring of his environment. Tends to sit most of the day, but enjoys activities when organised.

Cognition:

Moderate impairment. Actively participates in conversation, but does not tend to initiate conversation. Difficulty following more than two stage commands.

Interests:

Football (played for Carlton in the late 1940s, keen follower of football until recent years), ballroom dancing, fishing, 'the bush'.

Resource 2.4

Case studies and questions (for group work)

Mrs B.

Profile:

Mrs B is an 83 year old lady of Italian background, speaks fluent Italian and limited English.

She has been at this facility for seven years, and is having increasing difficulty with her walking and some falls.

Main medical past history:

Osteoarthritis in the hips, knees and back, diabetes (controlled by diet), peripheral neuropathy, bilateral cataracts (had successful surgery on right eye, awaiting surgery on left eye).

Current mobility:

Walks short distances indoors independently with single stick in right hand.

Cognition:

No problems.

Interests:

Previously enjoyed gardening, spending time outdoors, bocce, and long walks (doesn't do any of these now). Enjoys craftwork such as knitting, sewing (also problems now because of impaired vision).

1. What are some possible options for improving the older person's activity level?

2. What are some of the potential barriers to these options, and how might they be dealt with?

3. What are the implications for staff and residents if some of the proposed options were to be implemented?

4. Are there specific issues which have not been addressed in this case study which need to be considered?

5. Prepare a basic plan for increasing the resident's activity levels.

Resource 2.4

Case Presentation No.2

Mr L.

Profile:

Mr L is 78 years old and moved to this facility three months ago.

Main medical past history:

Duodenal ulcer, hypertension, urinary frequency, mild left sided stroke three years ago (resulting in a mild limp), Alzheimer's Disease, poor sleep pattern (doses during the day, restless at night).

Current mobility:

Walks briskly independently, no walking aid, mild limp. Poor monitoring of his environment. Tends to sit most of the day, but enjoys activities when organised.

Cognition:

Moderate impairment. Actively participates in conversation, but does not tend to initiate conversation. Difficulty following more than two stage commands.

Interests:

Football (played for Carlton in the late 1940s, keen follower of football until recent years), ballroom dancing, fishing, 'the bush'.

1. What are some possible options for improving the older person's activity level?

2. What are some of the potential barriers to these options, and how might they be dealt with?

3. What are the implications for staff and residents if some of the proposed options were to be implemented?

4. Are there specific issues which have not been addressed in this case study which need to be considered?

5. Prepare a basic plan for increasing the resident's activity levels.

Resource 2.5

Case study template

Your own case study

Profile:

Main medical past history:

Current mobility:

Cognition:

Interests:

1. What are some possible options for improving the older person's activity level?

2. What are some of the potential barriers to these options, and how might they be dealt with?

3. What are the implications for staff and residents if some of the proposed options were to be implemented?

4. Are there specific issues which have not been addressed in this case study which need to be considered?

5. Prepare a basic plan for increasing the resident's activity levels.

Background information

Hip protectors

(information from the Hornsby Ku-ring-gai hip protector Internet home page)

Poor long term outcomes have been repeatedly documented following hip fracture in the elderly population highlighting the need to attempt to prevent this injury occurring (Magaziner, J. et al.1989; Mossey, J.M. et al. 1989). Following extensive technical research and development an external hip protector was developed that redistributes the force of a fall from the greater trochanter of the femur to the muscles of the thigh (Lauritzen & Askegaard, 1992). Lauritzen, Petersen and Lund (1993) conducted a randomised trial in a Danish nursing home that demonstrated the effectiveness of external hip protectors in preventing hip fracture. This study found that only 24 patients needed to be treated to prevent one hip fracture, indicating a favourable cost benefit.

An important factor influencing the effectiveness of hip protectors is whether older women will wear them. In a study investigating the factors influencing compliance in wearing hip protectors, most women at high risk of hip fracture stated that they would not wear the hip protectors demonstrated (Cameron & Quine, 1994).

References

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- Mossey, J.M. Mutran, E. Knott & Craik, R.(1989), 'Determinants of recovery 12 months after hip fracture: the importance of psychosocial factors', *Am.J. Public Health*, **79**, 279-86.

Community Hip Protector Project - sub-studies

Fear of falling

We have identified an increase in confidence levels in those women wearing the external hip protectors. A number of women completed a 'fear of falling scale' at study entry and at four month follow up.

High risk hip protector study

A smaller number of women from nursing homes and hostels, who are at a very high risk of falling, have been recruited and followed for 18 months. The study design is very similar to the community study.

Australian hip protectors

We have developed Australian made hip protectors which incorporate plastic shields in specially designed underwear. Testing of the shields at Harvard confirms their efficacy. These hip protectors can be purchased from us, please email: klockwood@doh.health.nsw.gov.au

Hip protector orders

Get hip.. buy from us

Hornsby Healthy Hips for Sale

We are selling hip protectors that have been manufactured in Australia to people outside of the Northern Sydney region.

Please note that our hip protectors are not available for resale.

How to order your hip protectors

Hornsby Healthy Hips (Jockey) HHH/j

Cotton/Lycra garment made by Jockey Australia

Available in three sizes - small 10-12, med 14-16, large 18-20

Hornsby Healthy Hips (Confident Care) HHH/cc

Microfibre garment made by Confident Care

Available in four sizes x-small 8-10, small 10-12, medium 14-16, large 18-20

Hornsby Healthy Hips (Confident Care-drycare) HHH/dc

Microfibre garment incorporating a washable incontinence pad,

Available in three sizes -x-small 10-12, small 14-16, medium 18-20

[All garments have pockets for the removable shields which are purchased separately.](#)

A postage and packaging fee will apply.

When you order please ensure you provide the following:

- your name and full mailing address
- the details for billing (if different from above)
- size and type of hip protector required

Order via these contact numbers (to Kerry Lockwood)

Phone: (02) 9477 9768

Fax: (02) 9477 9105

Or email: klockwood@doh.health.nsw.gov.au

Reference abstracts

Physical activity and related factors among nursing home residents

Journal of the American Geriatrics Society 1994 Sep; 42(9): 987–91

Ruuskanen JM, Parkatti T

OBJECTIVE: The purpose of this study was to examine physical activity and the predictors of physical activity and exercise among nursing home residents.

DESIGN: Population study.

PARTICIPANTS: The sample (n = 190) was obtained by selecting every man and every second women from the entire nursing home population (n = 346) in the city of Jyvaskyla, central Finland, in autumn 1989. Information was eventually collected by interview from 158 persons (49 men and 109 women).

SETTING: An in-home interview carried out among nursing home populations.

MEASUREMENTS: Independent variables were the questions describing physical activity among nursing home populations. Dependent variables were the predictors of physical activity: depression, contentment with nursing home living, activities outside the nursing home, and self-rated functioning.

MAIN RESULTS: Walking and home gymnastics were the most common forms of physical exercise. The intensity of overall exercise was rather low, and the men carried out physical exercise more intensively than the women. More than 30% of the respondents reported decreased physical activity during their stay in the nursing home. However, attitudes toward physical exercise among the residents were largely positive. The primary factor limiting physical exercise was poor health status. Among the men, physical exercise was significantly associated with self-rated functioning, depressive symptoms, and contentment with life in the nursing home. Among the women, higher contentment with the nursing home and less depression were associated with a physically active life.

CONCLUSIONS: The results suggest that living conditions and factors related to health and functional capacity affect the level of physical activity among nursing home residents. In order to encourage this population to be physically active, attention should be paid not only to physical exercise but also to associated factors, such as satisfaction with everyday life and health.

Physical activity and psychological well-being among people aged 65 to 84 years

Age and Ageing 1995 Jul; 24(4):292–6

Ruuskanen JM, Ruoppila I

This report deals with the findings of an epidemiological interview carried out among two representative samples (n = 800 + 800) consisting of persons born in

1904–13 and in 1914–23, and living at home in the year 1988 in the city of Jyvaskyla, central Finland. The participation rate was 80% (n = 1244). It appeared that overall involvement in physical exercise decreased with increasing age, especially among the women. About 50% of the subjects carried out regular walking exercise and 40% practised some form of home gymnastics which was considered not to be very intensive. About 20% of the subjects were no more physically active than was essential for performing their daily activities. According to log-linear and regression models, there was a significant association between higher prevalence of depression and no regular physical exercise. Self-rated meaningfulness of life and better subjective health were also significantly related to regular and intensive physical exercise. These relationships were more obvious among the younger cohort (65–74 years). The results suggest that involvement in physical exercise may promote positive perceptions of psychological well-being among the elderly. On the other hand, psychological well-being seemed to be an important predictor for staying physically active at advanced ages. These findings are based on a cross-sectional study and therefore leave open the question of direction of causality which will be pursued in a follow-up survey.

Functional Incidental Training, mobility performance, and incontinence care with nursing home residents

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Schnelle JF, MacRae PG, Ouslander JG, Simmons SF, Nitta M

OBJECTIVE: To determine if an exercise intervention, Functional Incidental Training (FIT), results in improvements in mobility endurance and physical activity when compared with prompted voiding (PV) among cognitively and mobility impaired nursing home residents.

DESIGN: Residents from four nursing homes were randomized into either a PV only (PV) or a PV plus FIT (FIT) intervention group for eight weeks. Research staff implemented all intervention and measurement protocols.

PARTICIPANTS: Seventy-six incontinent nursing home residents completed all phases of the trial.

MEASURES: The standing, walking and wheelchair endurance physical activity, and frequency of agitation of all residents were assessed before, during, and after the eight-week intervention.

RESULTS: The average length of time that subjects could walk or wheel was 2.6 and 4.6 minutes, respectively, at baseline. There was a significant group x time interaction after intervention, with only the FIT group showing improvements in walking, wheelchair and standing endurance (Manova $F = 4.56, 2.62, \text{ and } 5.98$, respectively; $P < .05$ in all cases). The frequency with which agitation was observed showed a significant drop over time in both groups ($F = 14.3, P < .001$), with no significant group x time interaction.

CONCLUSION: The FIT intervention, which requires six minutes more nurses' aide time than does PV, increases both physical activity and mobility endurance in extremely frail and deconditioned nursing home residents. The increased cost of this intervention must be evaluated both in terms of clinical outcomes and by the reality that the target group for this intervention is very frail and will continue to require nursing home care, even assuming an excellent response to the intervention.

Effect of external hip protectors on hip fractures

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Lauritzen JB, Petersen MM, Lund B

Most hip fractures seem to be related to trauma near the hip, so a controlled trial was conducted to investigate the effect of external hip protectors on the prevention of such fractures in residents of a nursing home. Ten of the 28 wards in the nursing home were randomised to receive external hip protectors; thus 167 women and 80 men were given protectors and 277 and 141 men no protectors. A fall register was set up for two treatment wards (45 residents) and two control wards (76 residents). There were eight hip and 15 non-hip fractures in the hip protector group and 31 hip and 27 non-hip fractures in the control group. The relative risk of hip fractures among women and men in the intervention group was 0.44 (95% CI 0.21-0.94). None of the eight residents in the intervention group who had a hip fracture was wearing the device at the time of the fracture. One hundred and fifty-four falls were registered and 20% of these falls produced a direct impact to the hip. In 25 falls direct impact to the hip was sustained at a time when hip protectors were not being worn, and six fractures were produced. The study indicates that external hip protectors can prevent hip fractures in nursing-home residents.