

*Fall Prevention Program
for Dementia Clients –
Caregivers' Perspective*

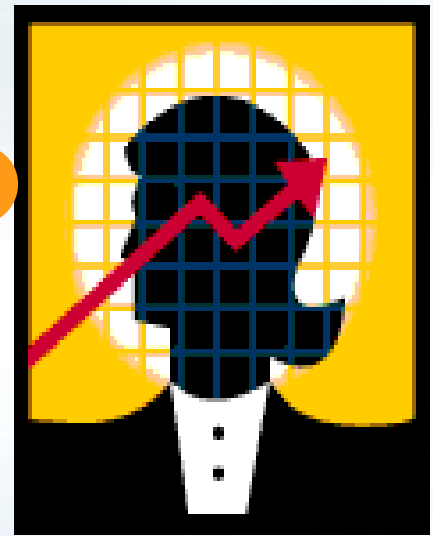
Wong Chuk Hang Hospital

Background

- In recent decades, the average age of people in our society has increased
- As a result of higher ages and increase in survival rates, the prevalence of older people with dementia is expected to increase
- In Hong Kong, 4% of elderly persons aged 65 or above and 6% of those aged 70 or above suffer from dementia.

(Chiu, Lam, Leung, & et al, 1998)

Background



- Dementia is a major risk factor for fall.
- The annual incidence of falls in patients with dementia in UK is 40-60 %

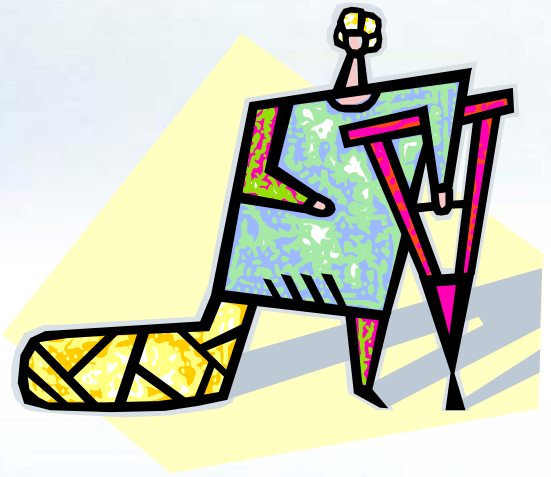
(Shaw & Kenny, 1998)

Causes of Fall



- Complex interaction of intrinsic and extrinsic factors:
 1. intrinsic factors related to normal changes of aging or impairments due to disease,
 2. extrinsic factors include environmental hazards as well as activity related factors.

Consequences of Falls



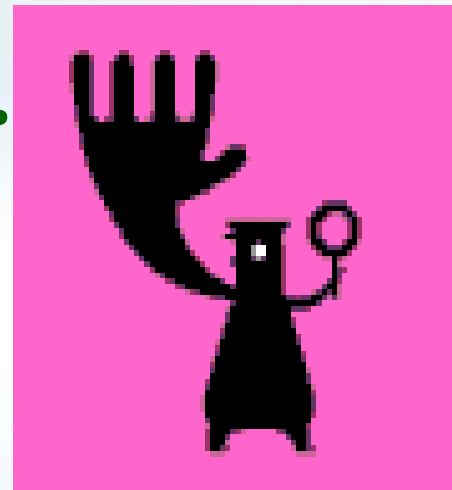
- Falls are a major cause of morbidity and mortality.
- 1/4 patients with dementia who fall sustain a fracture after fall
- Falls and associated injuries can have considerable influences on the society & the autonomy and quality of life of older.

Why do elders with dementia fall?



- Elders with dementia display much greater than expected impairments of gait and balance.
- Dementia which leads to poor judgment about one's physical ability
- Therefore, the problem of falls in patients with dementia cannot be ignored.

Misunderstanding about elders with Dementia



- Falls are a normal part of the demented process
- Demented elders is unable to cooperate with investigations
- Demented elders will be unable to cope with the necessary interventions.

(Shaw & Kenny, 1998)

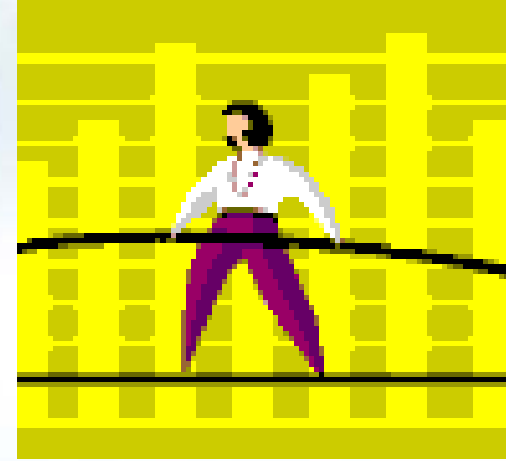
Misunderstanding about elders with Dementia

- When a dementia caregiver admits their loved one to our Dementia Day Care Center, I often hear a familiar phrase:

"We couldn't prevent his/her falls."



Can falls in patients with dementia be prevented?



- An integral component of primary prevention of falls is an evaluation of caregiver awareness on falls.
- Deficits in the knowledge of specific risk factors can be targeted as a preventive strategy.

(Gray & Hildebrand, 2000).

Possible Solutions for Fall Prevention for Demented Elders

- Educational programs can help make a greater risk prevention awareness and result in a much greater knowledge of effective risk reduction strategies



(Shaw & Kenny, 1998)

Possible Solutions for Fall Prevention for Demented Elders

- Therapeutic interventions such as training on endurance, balance, flexibility, and resistance can significantly reduce the fall incidence for elders.



Fall Prevention Program



- In view of the above-mentioned problems & possible solutions, *A Pilot Study on Fall Prevention Program for Dementia Clients – Caregivers’ Perspective* has been implemented in Dementia Day Care Center (DDCC) in WCHH since 1st April 2007.

Objectives of Program

1. To assess caregivers' awareness in fall prevention
2. To raise the caregivers' awareness and provide relevant training around falls prevention
3. To decrease the number of falls in demented clients by raising their caregivers' awareness and knowledge of the contributory factors

Methodology



Interventions

- A clinical assessment and review done by health care team
- Non-pharmacological interventions were provided ~ 4 months of multi-disciplinary therapeutic training (2 days/ week)
- Encouraging activity among clients by providing regular exercise programs designed specifically for older participants.

Additional Interventions



- Two sessions of educational workshop were conducted for increasing the awareness and knowledge of caregivers in fall prevention
- Self-designed questionnaires were used for assessing the caregivers' awareness and consequences of fall for elders.
- The questionnaire was given to caregivers before and after attending the education talk.

Self-designed Questionnaires

- The question one of questionnaire was designed based on the principal sources of caregivers' strain experienced by their family caregivers.



(Shaji, Smitha, Praveen, & Prince, 2003)

Additional Interventions

- Screening home visits were done
- Fall Prevention Clinical Protocol was employed to identify fall risk and advise the strategies on fall prevention.
- If the caregiver was unable to complete the questionnaire or protocol independently, the nurse helped with reading.

Outcome Measures

1. Caregivers' awareness in fall prevention
2. Caregivers' knowledge on consequence of fall
3. Number of falls in demented clients
4. The compliance rate of caregivers to self-evaluate the fall risks as listed in Clinical Protocols



Data Analysis



- **Descriptive statistics**
 - To examine the demographic data and clinical characteristics of the subjects.
 - To analyze the effectiveness of the fall prevention program
- **Pair sample t-tests**
 - To analyze the effectiveness of the clinical protocols
- **The level of statistical significance had been set at 0.05**

Results



Results

- Only 10 caregivers were available to participate the educational workshops.
- Two identical educational workshops were given to both caregivers and clients on 24 & 27 April 2007.
- Pre-intervention & post-intervention questionnaires were collected in April and August 2007 respectively

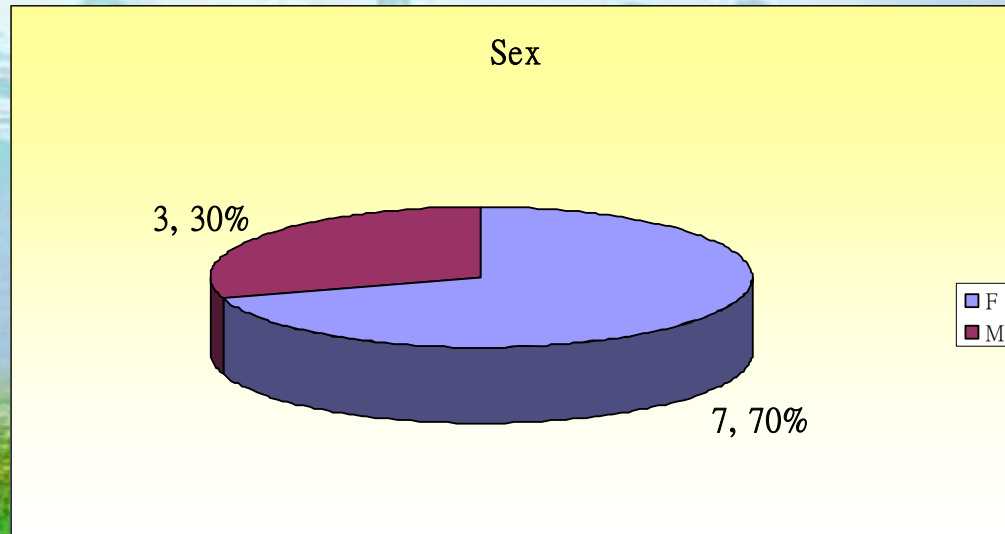
Results



- Ten home visits were done
- Recommendations and advices were documented in Fall Prevention Clinical Protocol
- One referral to OT for handrail installation

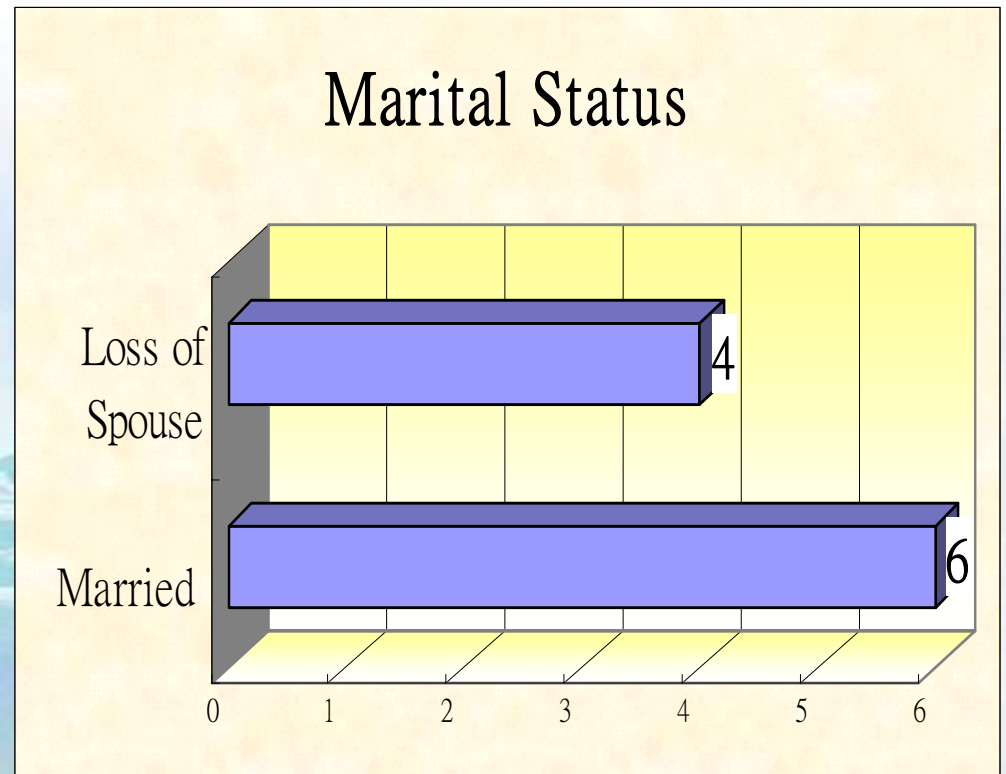
Clients Characteristics

- Gender
 - 7 Females, 3 Males
- Age
 - 66 - 94
 - Mean age: 79.1



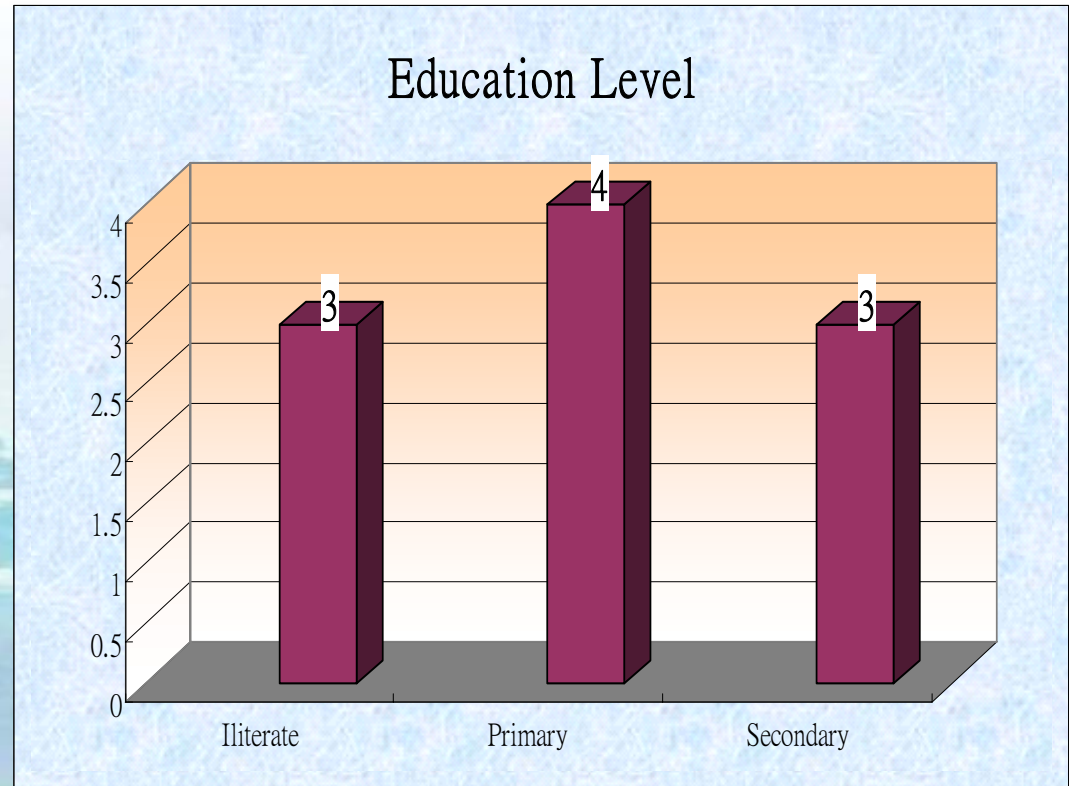
Clients Characteristics

- 6 (60%) were married and
- 4 (4%) were loss of spouse.

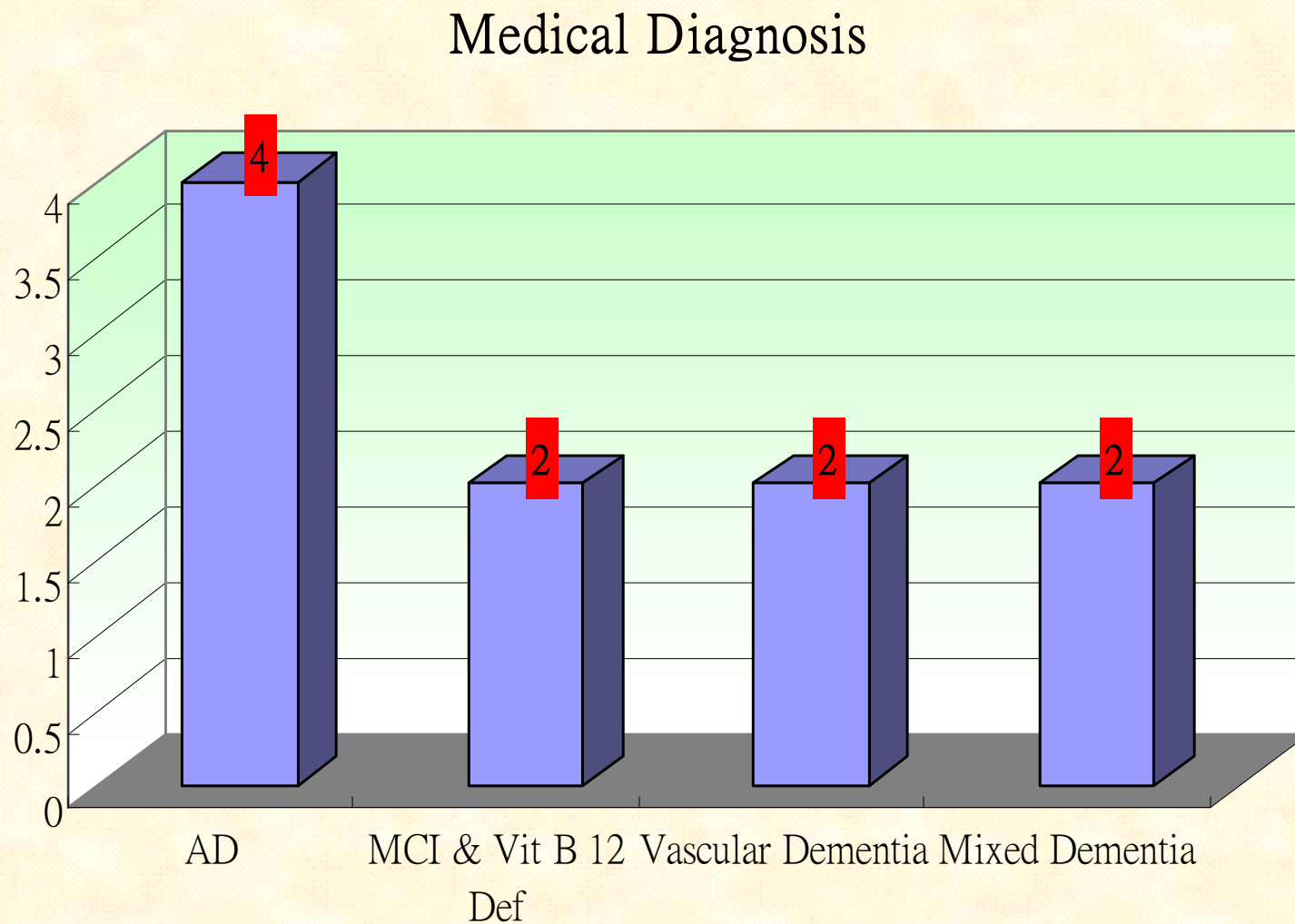


Clients Characteristics

- 7 (70%) of them received some forms of education,
- 3 (30%) of them received no education at all

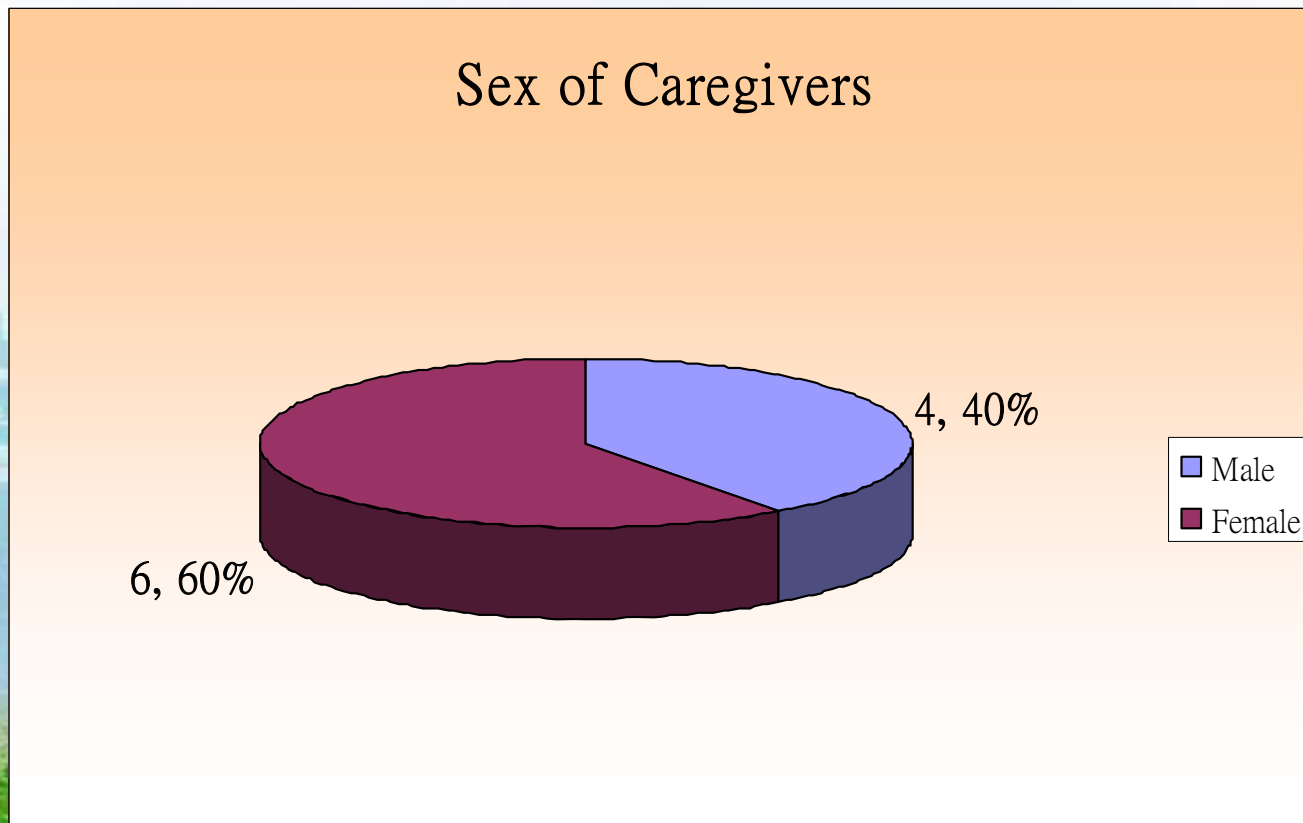


Medical Diagnosis



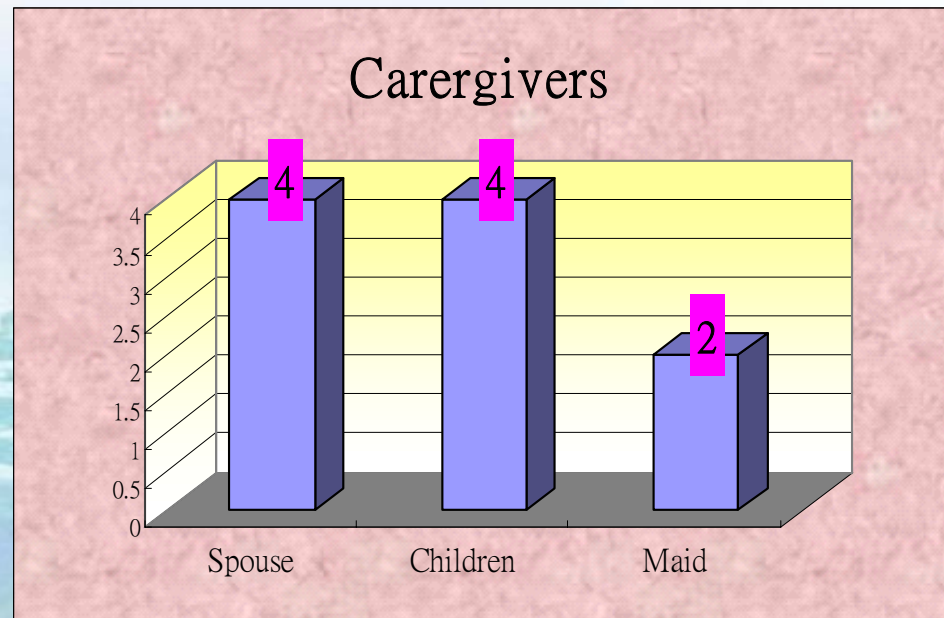
Caregivers Characteristics

- Gender
 - 6 Females, 4 Males



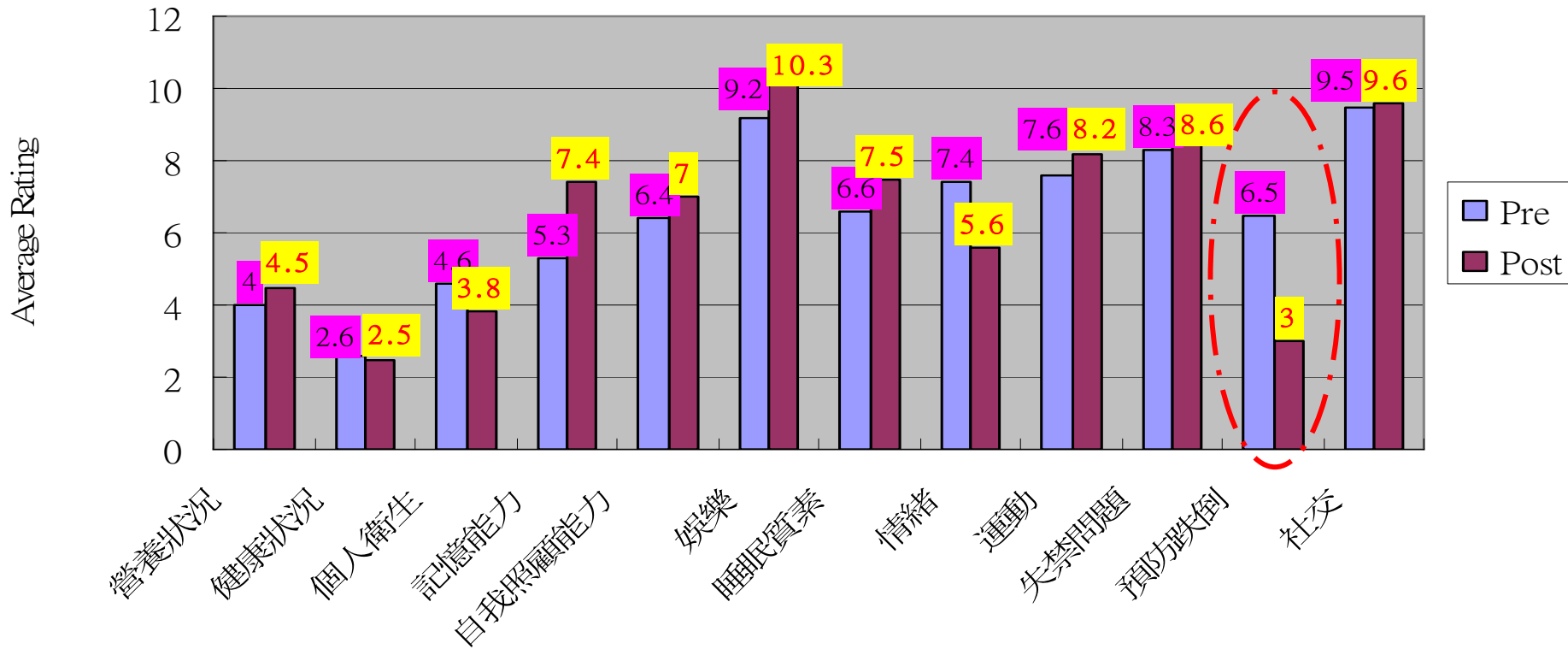
Caregivers Characteristics

- 4 (40%) were clients' spouse,
- 4 (40%) were clients' children, and
- 2 (20%) were their maid



Caregivers' Perception on Importance of Caring Aspects

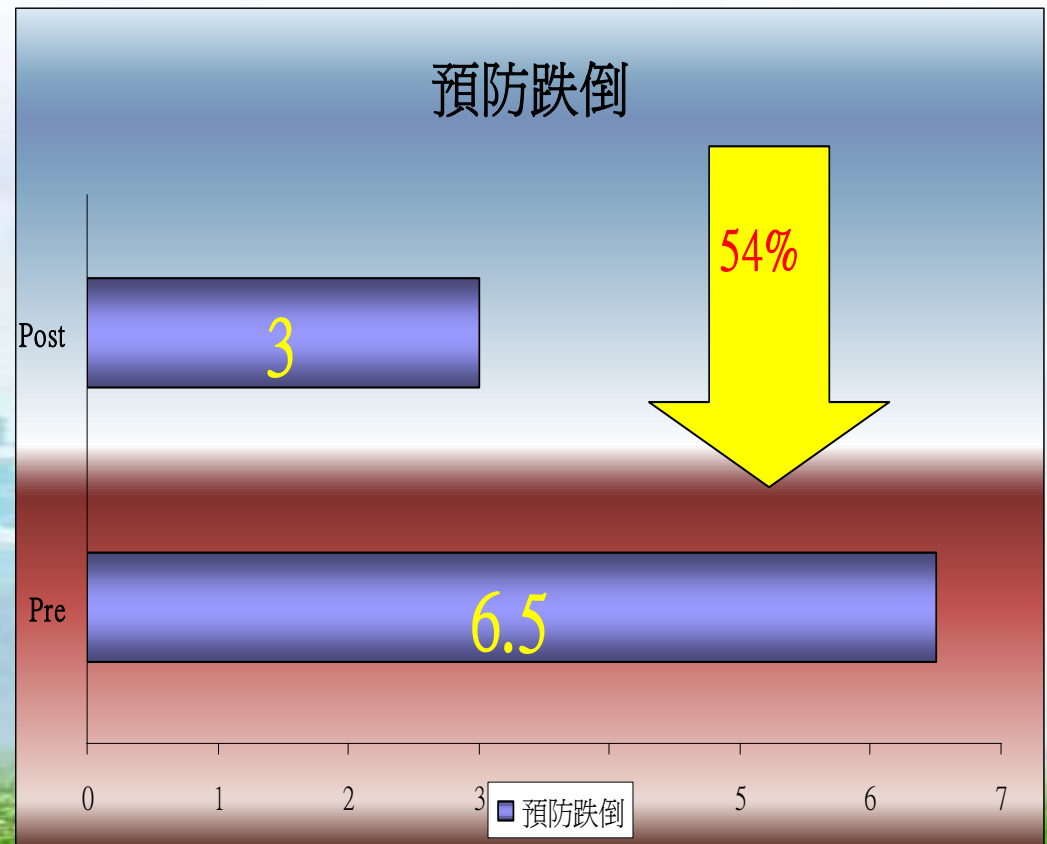
Comparison of Average Rating of Importance



Rate by the importance from 1 - 12

Comparison of Caregivers' Awareness of importance on Fall Prevention

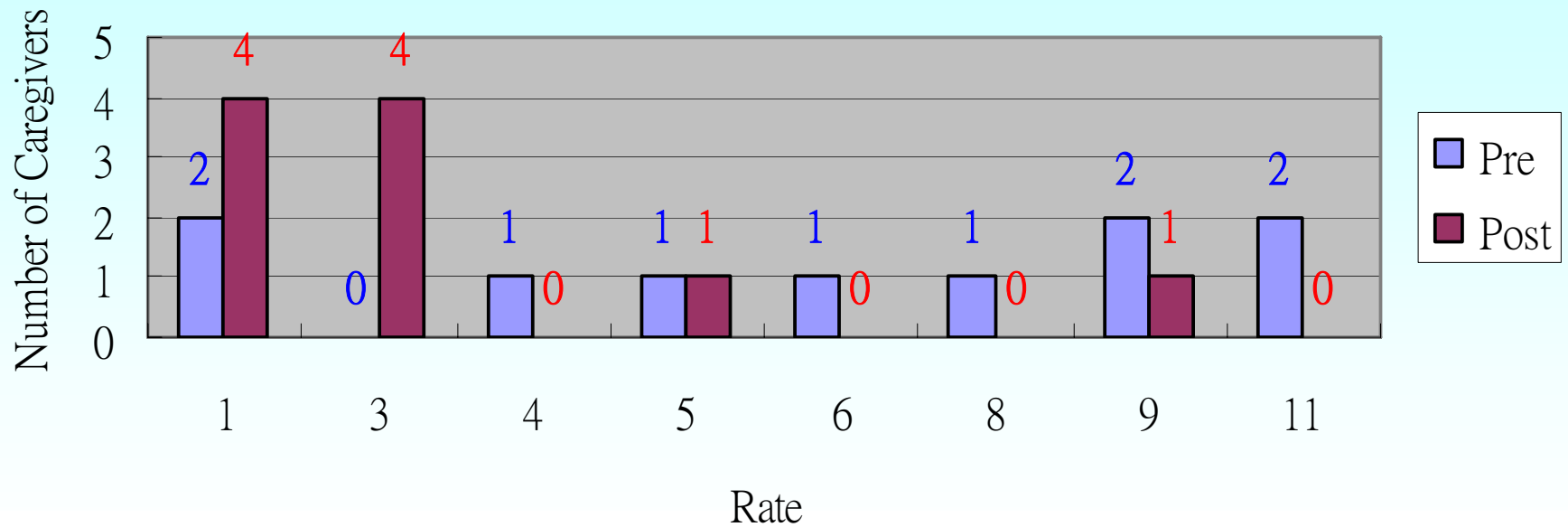
- The average score of importance on fall prevention changed from 6.5 to 3.



Rate by the importance from Score 1 - 12

Comparison of Caregivers' Awareness of importance on Fall Prevention

預防跌倒的重要性



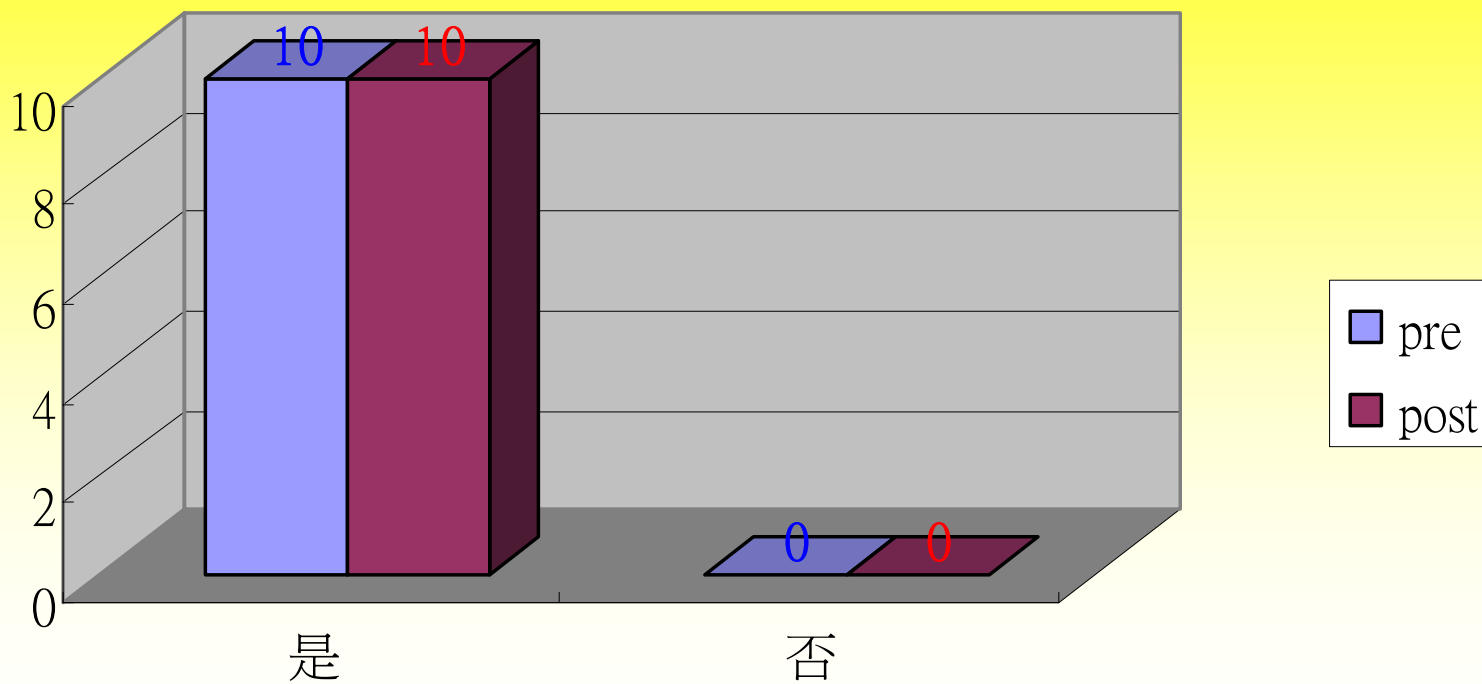
Rate by the importance from 1 - 12

Comparison of Caregivers' Awareness of importance on Fall Prevention

- By using Pair Sample t-test, it was found that there was a significant decrease in the mean rating ($p = 0.025$).

Comparison of Caregivers' Knowledge on Consequence of Fall Incidents

你認為長者摔跌後會否引起嚴重問題

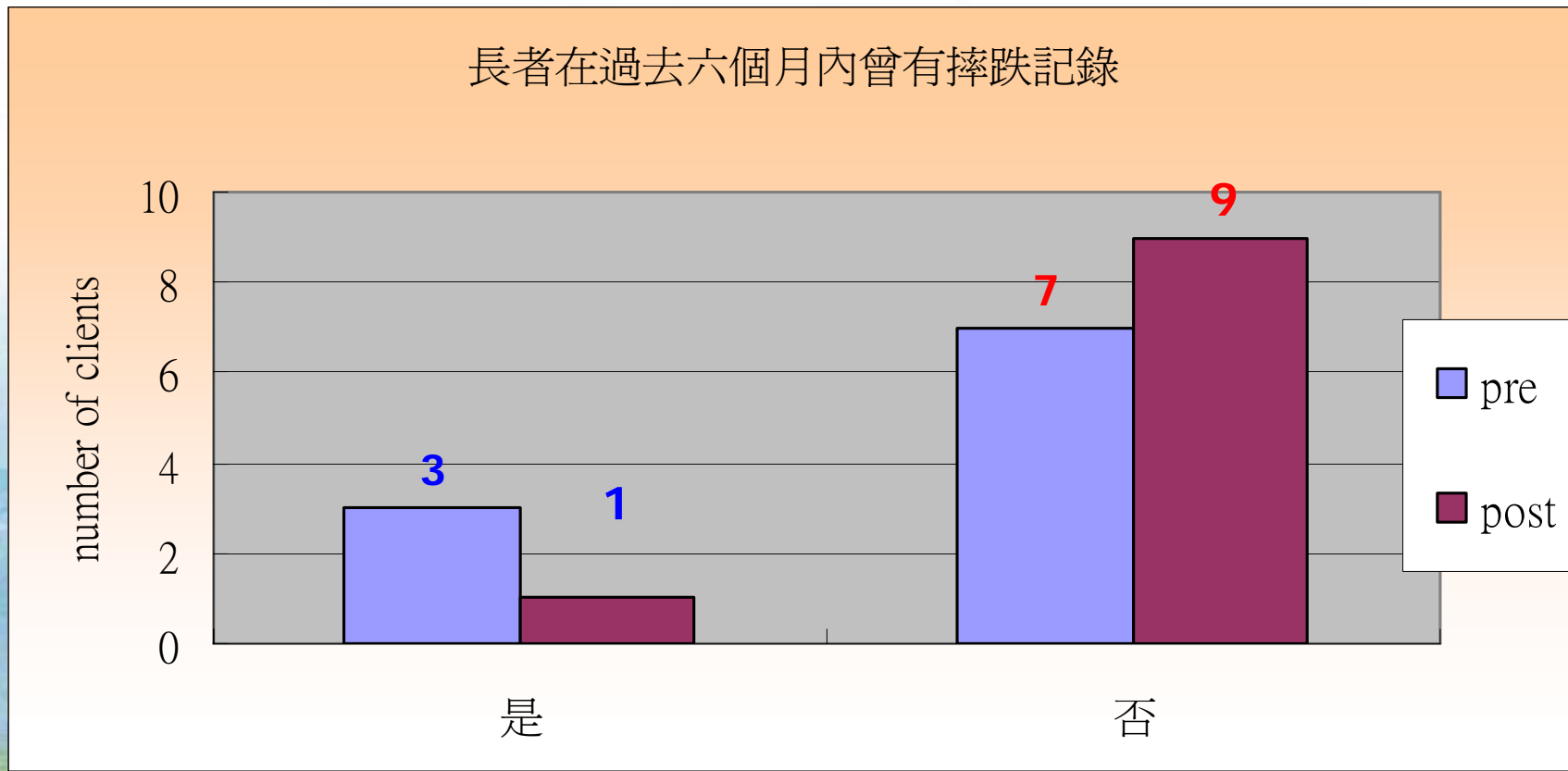


Caregivers' Knowledge on Consequences of Fall Incidents

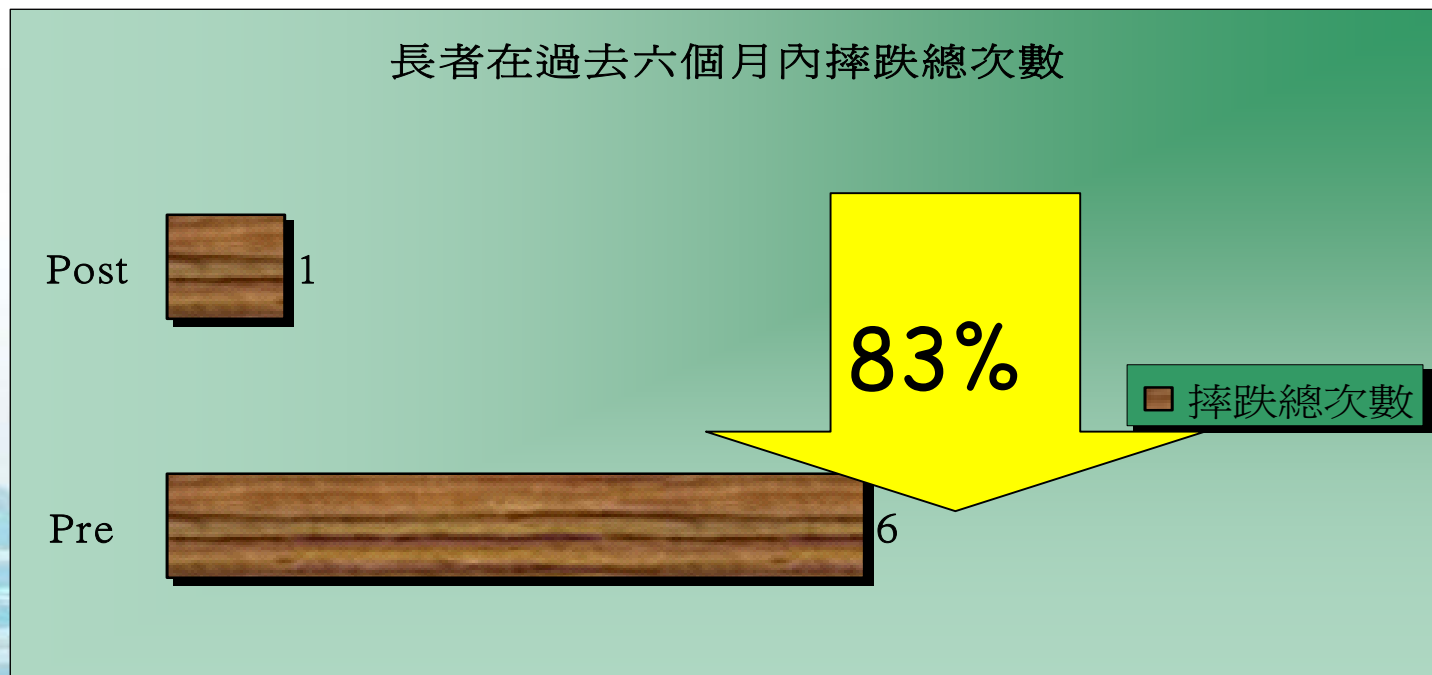
- 骨折
- 瘀傷
- 中風
- 行動不便
- 要家人照顧
- 半身不遂



Comparison of Fall Incidence of Dementia Elders



Comparison of Fall Episodes of Demented Elders



However, there was no significant difference between two periods ($p > 0.05$).

Compliance Rate of Caregivers in Evaluation of Clinical Protocols

- The compliance rate of caregivers in self-evaluation on fall risks listed in Clinical Protocols was 100%.
- After self-evaluation, caregivers reported the progress to nurses in our Center

Conclusion



- Prevention of falls in patients with dementia is becoming increasingly important at both the individual patient level and as a wider health service issue.
- Fall is not merely "slip and fall" nor merely "an accident".
- Fall is neither an unexpected or inevitable consequence of aging

Conclusion



- It is imperative that nurses become involved in coordinating fall education programs
- Fall prevention program in caregivers' perspective can promote the idea that the probability of fall was reduced by risk awareness, and active involvement to modify environmental risk.

Thank You