CPCE Health Conference 2025
Session E - 1

Evaluating a Challenge -Based Learning Intervention for Dysphagia Awareness Among Hong Kong Seniors and Caregivers: A Pilot Study



Author(s):

CHEUNG Yan Tung, NG Sze Wing Vishti, WONG Sum Yee, LEUNG Suet Kiu, YAU Cheuk Wing, LEUNG Wing Ki, CHOW Cheuk Yui, LAU Chung Hin Johnny, LI Chi Kit, TIAN Shanshan, CHU Ka Man, LOK Ka Yan, SO Tsz Wan, CHAN Shun

School of Nursing, Tung Wah College, Hong Kong SAR, China

CONTENT

1 Background

2 Methods

3 Results

4 Discussion

5 Conclusion



Background

Relationship of Dysphagia and Aging

The number of individuals aged 65+ is expected to rise from 20.5% in 2021 to 36.0% in 2046.

Population size and age structure (excluding foreign domestic helpers)

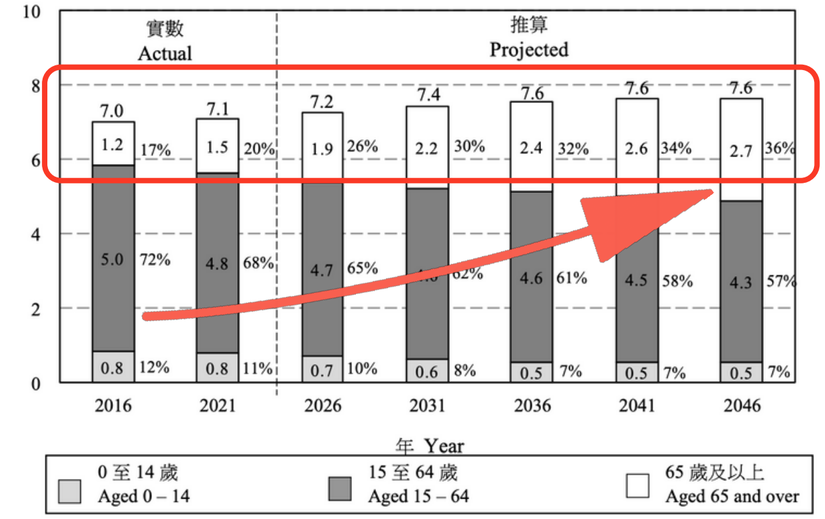
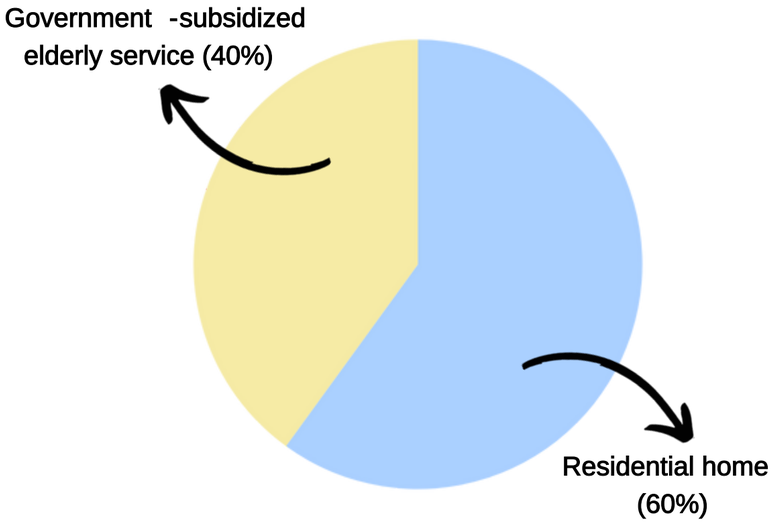


表 3.1a 按年齡及性別劃分的患有慢性疾病^的人士數目
Table 3.1a Persons who had chronic health conditions^ by age and sex

年齡組別 Age group	男 Male 人數 No. of persons ('000)	男 Male 百分比 %	男 Male 比率* Rate*	女 Female 人數 No. of persons ('000)	女 Female 百分比 %	女 Female 比率* Rate*	合計 Overall 人數 No. of persons ('000)	合計 Overall 百分比 %	合計 Overall 比率* Rate*
< 15	30.6	3.0	7.9	21.9	1.9	6.0	52.5	2.4	7.0
15 - 24	21.3	2.1	7.3	19.3	1.7	6.9	40.7	1.9	7.1
25 - 34	29.3	2.9	6.9	34.2	3.0	7.9	63.5	2.9	7.4
35 - 44	51.1	5.1	11.2	63.8	5.5	11.9	114.9	5.3	11.6
45 - 54	107.3	10.6	22.9	140.5	12.2	24.0	247.7	11.4	23.5
55 - 64	246.9	24.4	44.2	275.5	23.9	43.1	522.4	24.1	43.6
≥ 65	525.8	51.9	73.3	596.9	51.8	74.5	1 122.8	51.9	73.9
合計# Overall#	1 012.4	100.0 (46.8)	30.6	1 152.1	100.0 (53.2)	31.7	2 164.6	100.0 (100.0)	31.2
年齡中位數（歲） Median age (years)		65			65			65	

World Health Organization (2023) stated:
Citizens ages 70 or below should be highly aware of having chronic diseases



Hong Kong (HK)

Prevalence rate of dysphagia in the geriatric population (receiving residential care services)

The rising prevalence of dysphagia among Hong Kong's ageing population presents **significant dietary management challenges** for both affected individuals and their caregivers

(Census and Statistics Department, 2023, 2024; The University of Hong Kong, 2015)

Challenge -Based Learning



(Apple, 2025)

Challenges



Limited Public Awareness

**Need assessment questionnaire (n=134). Around 50% responded limited understanding on Dysphagia*



Negative Perceptions of Soft Diets

**Need assessment questionnaire (n=134). Nearly 60% responded: low acceptance on soft diets*

**Need assessment questionnaire (n=134). Around 70% responded: non appetising on soft diets*

Using **Challenge Based Learning (CBL)**

Design a health education program to promote dysphagia management strategies among at-risk **aged 50 -70** and their caregivers

**Need Assessment was conducted via online to assess the public's (age group 50 -70) knowledge among dysphagia and soft diets from 29/10/2024 to 1/11/2024*

Objectives

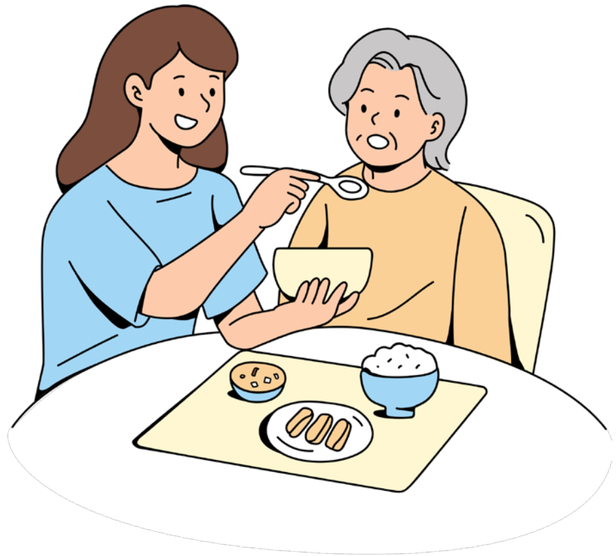
Assess **feasibility and effectiveness** of CBL



Enhance dysphagia **knowledge**



Shift negative **attitudes** toward soft diets



Increase **acceptance** of dyphagia management strategies



Methods

Study Design

Quasi-experimental Pilot Study

- Used a **Difference in Differences** Design
- Data is collected via face-to-face before and after the event
- To implement a health education program

Intervention Components

Health Education Program

A **Dysphagia Didactic Sessions**

B **Thickener Demonstrations**

C **Soft Diet Tasting**

Target Group



At-risk adults (aged 50-70)



At-risk adults' caregivers

(Census and Statistics Department, 2023; Department of Health, 2025; The Government of the Hong Kong Special Administrative Region, 2023; World Health Organization, 2023)

Interv ention Components

Part A: Dysphagia Did actic Sessions





Educational presentations on dysphagia pathophysiology and management strategies

*All event photos are authorised by participants for study results sharing.

Interv ention Components

Part B: Thi ckener Demonstrations









Hands -on demonstrations of

proper thickener preparation techniques

**All event photos are authorised by participants for study results sharing.*

Interv ention Components

Part C: Soft Diet Tasting







Participants receive a variety of soft diets, including bread, dumplings, and dishes from Chinese and Western cuisines

**All event photos are authorised by participants for study results sharing.*

Interv ention Components

Part C: Soft Diet Tasting







Interactive sessions allowing participants to experience texture -modified foods

**All event photos are authorised by participants for study results sharing.*

Pre-Post Analysis

Pre-event Assessment
(In total: 23 questions)

Including 5 items:



Demographic Data and Food Preference



Knowledge and Awareness Level of Dysphagia



Impression and Acceptance Level of Soft Diet



Self-swallowing -screening in using Eating Assessment Tool -10



Community Resources Suggestion and Event Expectations

Data Description

Pre-Post Data Analysis

Data Description

Post-event Assessment
(In total: 13 questions)

Including 4 items:



Demographic Data and Food Preference



Knowledge and Awareness Level of Dysphagia



Impression and Acceptance Level of Soft Diet

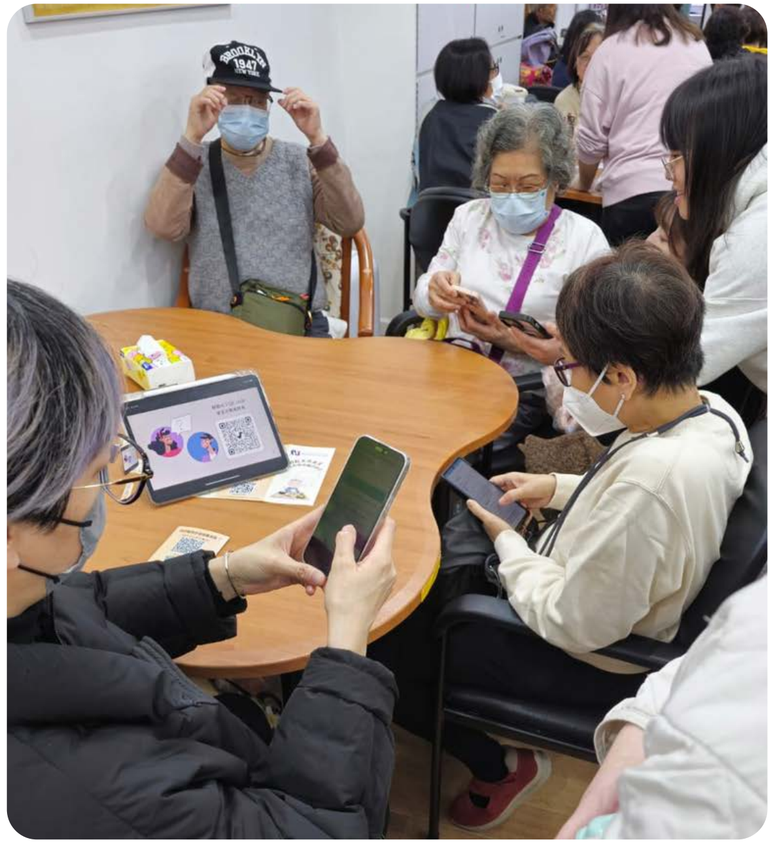


Event Feedback and Suggestions

Total of 29 participants who attended the community -based event, and total of 20 completed the questionnaire.

Methods





Collect data through face -to-face before and after the event to evaluate the effectiveness of the program

*All event photos are authorised by participants for study results sharing.



Results

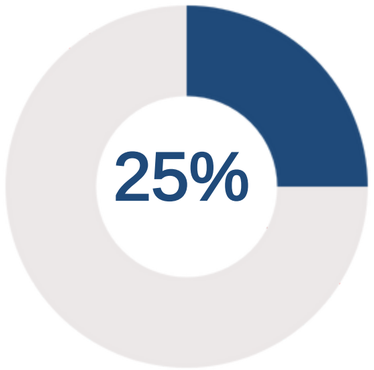
東華學院 TUNG WAH COLLEGE
Tung Wah College School of Nursing

Pre-Event Questionnaires Results

Baseline Assessment Revealed Substantial Knowledge Gap

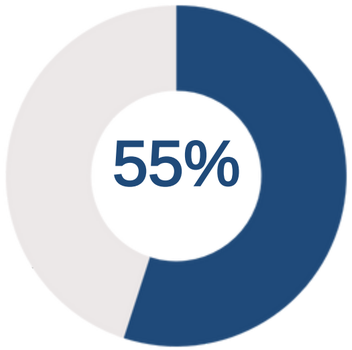
Knowledge and Awareness Level of Dysphagia

Unaware of Dysphagia



One quarter of participants had no prior knowledge of swallowing difficulties

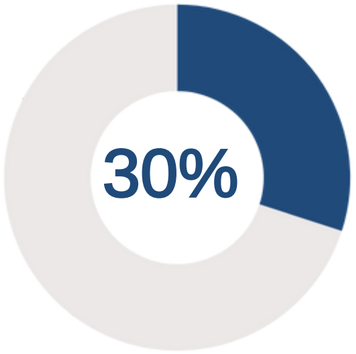
Unaware of Modification Need



Over half didn't recognize the necessity for food texture modification

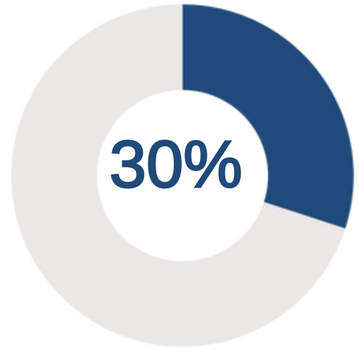
Impression and Acceptance Level of Soft Diet

Unfamiliar with Soft Diets



Nearly one -third lacked understanding of texture -modified foods

Less interested in Soft Diets



Only 30% reported that they were interested in soft diet

Post-Event Questionnaires Results

Knowledge and Awareness Level of Dysphagia

Increased Understanding about Dysphagia

Enhanced Understanding in Modification Need

Impression and Acceptance Level of Soft Diet

More Familiar with Soft Diets

Interested in Soft Diets

Event Feedback and Suggestions

Satisfied with the Event

Data Description

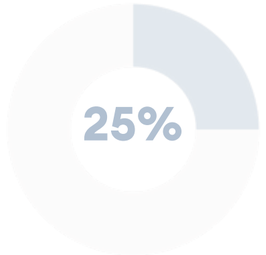
**Questionnaires data results are authorised by participants for study results sharing.*

Results

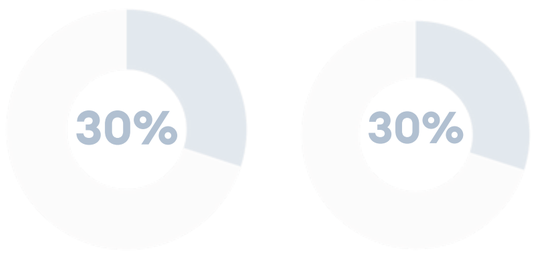
Pre-Event Questionnaires Results

Baseline Assessment Revealed Substantial Knowledge Gap

Knowledge and Awareness Level of Dysphagia



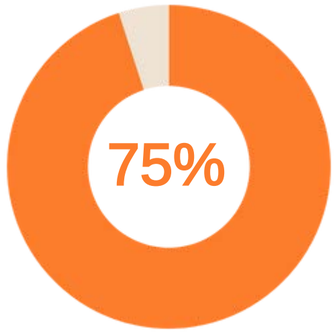
Impression and Acceptance Level of Soft Diet



Post-Event Questionnaires Results

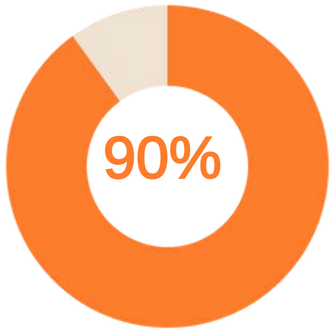
Knowledge and Awareness Level of Dysphagia

Increased Understanding about Dysphagia



75% of the participants had a better understanding of Dysphagia after the event.

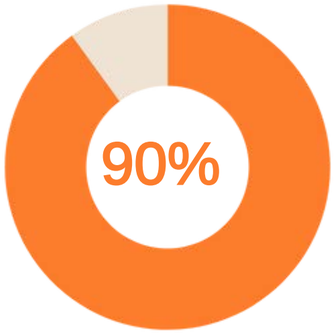
Enhanced Understanding in Modification Need



90% of participants gained a better understanding of dysphagia dietary needs after the program.

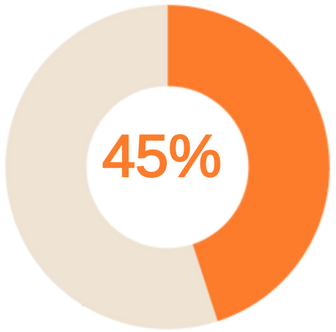
Impression and Acceptance Level of Soft Diet

More Familiar with Soft Diets



90% of the participants were more recongized about soft diet.

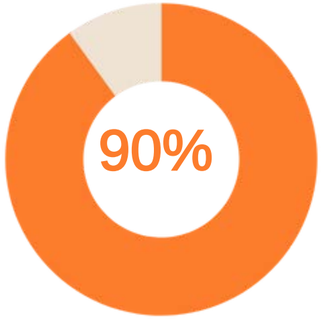
Interested in Soft Diets



An increase of 15% in participants reported a positive impression of soft diets.

Event Feedback and Suggestions

Satisfied with the Event

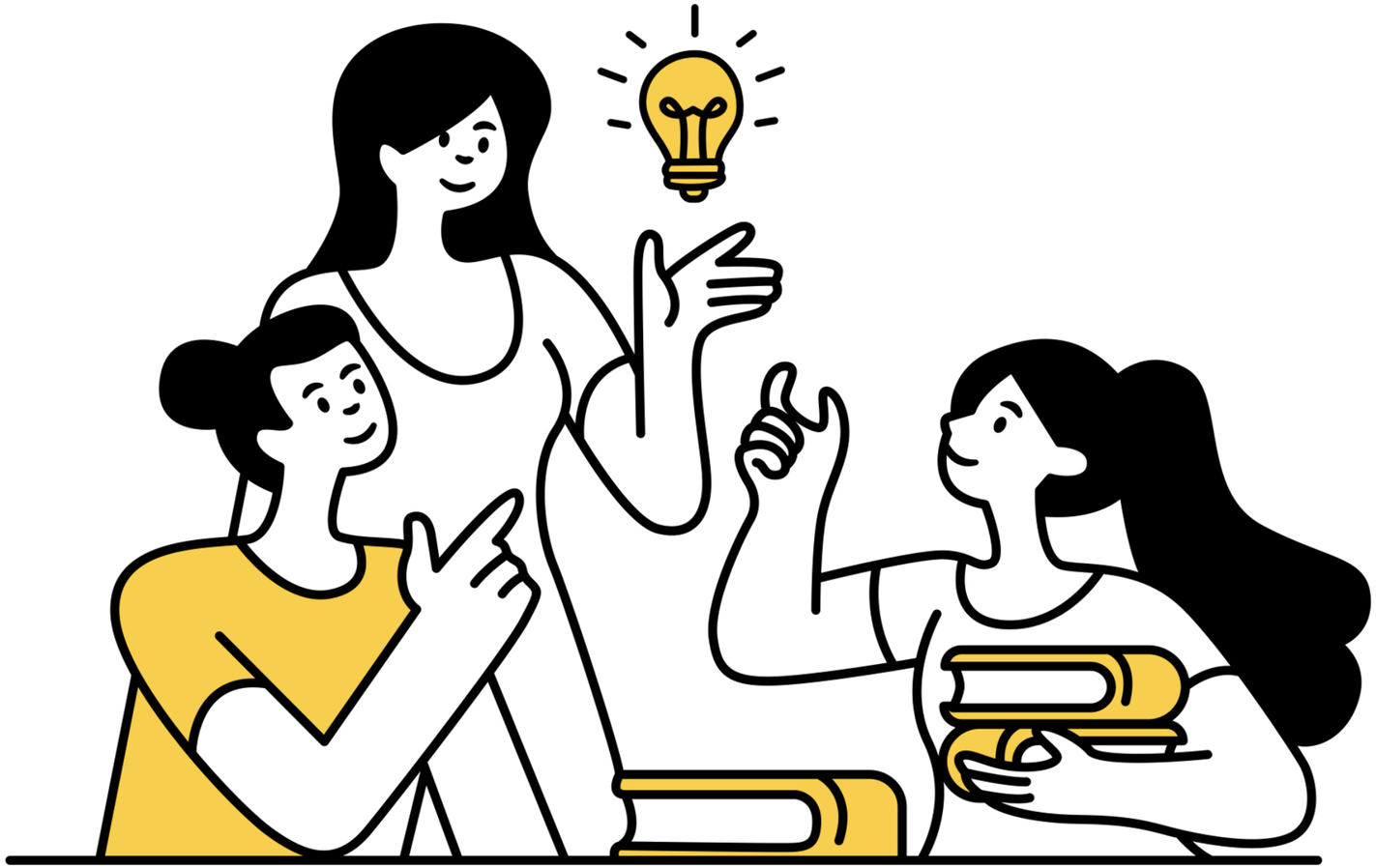


90% of the participants were satisfied with the program.

Data Description

Increased proportion of awareness on Dysphagia

**Questionnaires data results are authorised by participants for study results sharing.*



Discussion

High Satisfaction Ratings Support the Feasibility of the Program

~ Although future iterations should incorporate longitudinal follow -up and objective outcome measures ~

Challenge-Based Learning



(Apple, 2023)

- Can **deliver complex health information** while addressing deeply ingrained food preferences effectively
- **Improved immediate** knowledge outcomes
- **Changed to positive attitudes** in dysphagia dietary modification
- **Impactful in changing perceptions** about soft diets in combining theoretical knowledge with hands -on experiences appeared particularly

Limitation

Small sample size and single -session design limit our ability to assess knowledge retention or behavioural changes



Conclusion

Conclusion



- This pilot study demonstrates the potential of experiential, CBL-based approaches
  - to **address critical gaps in dysphagia awareness**
- Future research should:
  - Examine **scalability** across diverse community settings
  - Evaluate **sustained impact** through larger, controlled trials with extended follow-up periods
- These findings have **important implications** for public health strategies targeting Hong Kong's **rapidly ageing population**

THANK YOU!





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Abbreviations

CBL: Challenge Based Learning

