

# Affective images: relieving chronic pain and enhancing quality of life for older persons

Mimi Tse, PhD

Sandra Pun, BSN

Iris Benzie, DPhil, FIBMS

The Hong Kong Polytechnic University

**CyberTherapy 2005: A Decade of VR**



# Introduction

- ↑ life expectancy, ↑ chronic illness;
- ↑ chronic pain
- Chronic pain robs older people of their quality of life, limits functional mobility, leading to muscle atrophy
- Pain relief usually prescribe as 'PRN'
- older persons are reluctant to request pain relief, attempting to endure pain as 'normal' part of ageing.



# The objectives of the study

- 1) develop a collection of affective images/pictures book for older persons
- 2) apply the affective images and pictures book while performing physiotherapy exercise
- 3) relieve pain and enhance quality of life of the older persons with chronic pain

# Design

- single group repeated measure design
- Data were collected over 6 weeks

1 <sup>st</sup> week	2 <sup>nd</sup> week	3 <sup>rd</sup> week	4 <sup>th</sup> week	5 <sup>th</sup> week	6 <sup>th</sup> week
HRQOL					HRQOL
VAS After PT	VAS After PT  With & Without watching Affective images	VAS After PT  With & Without watching Affective images	VAS After PT  With & Without watching Affective images	VAS After PT  With & Without watching Affective images	VAS After PT

A decorative graphic on the left side of the slide, featuring overlapping circles in light green, light blue, and light purple, with yellow triangular rays emanating from them.

# Sample

- Inclusion criteria:
- cognitively intact based on Abbreviated Mental Test (AMT) – modified score  $\geq 8$
- With chronic pain in the last 3 months
- need to perform stretching and standing exercise in the physiotherapy session
- with a normal or corrected vision

# Equipment – Affective images and pictures book

- according to the preference of the older persons
- Images: Chinese snack food and dim sum; market areas, and landmark of the city, transportation system, flowers and nature scenery and also images of previous famous movie stars
- 60 images and pictures collected

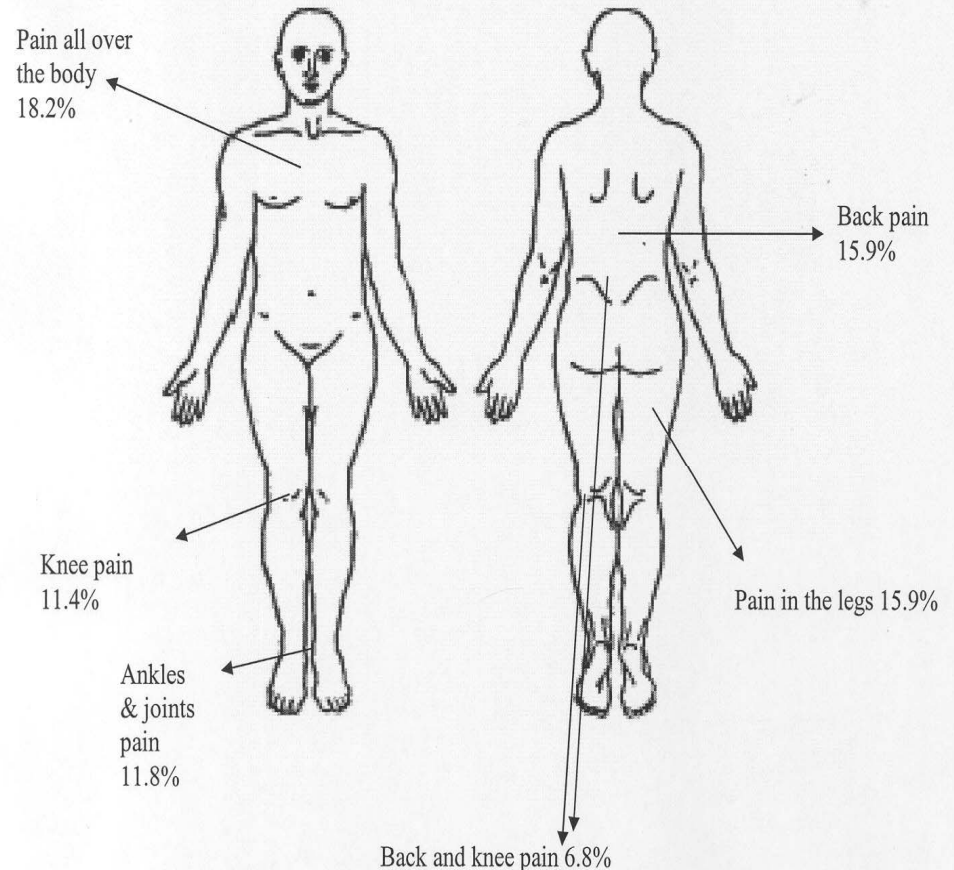


# Procedure

- while having physiotherapy exercise
- (stretching & moving arms and legs & standing exercises)
- the picture book was shown to the older person

# Findings

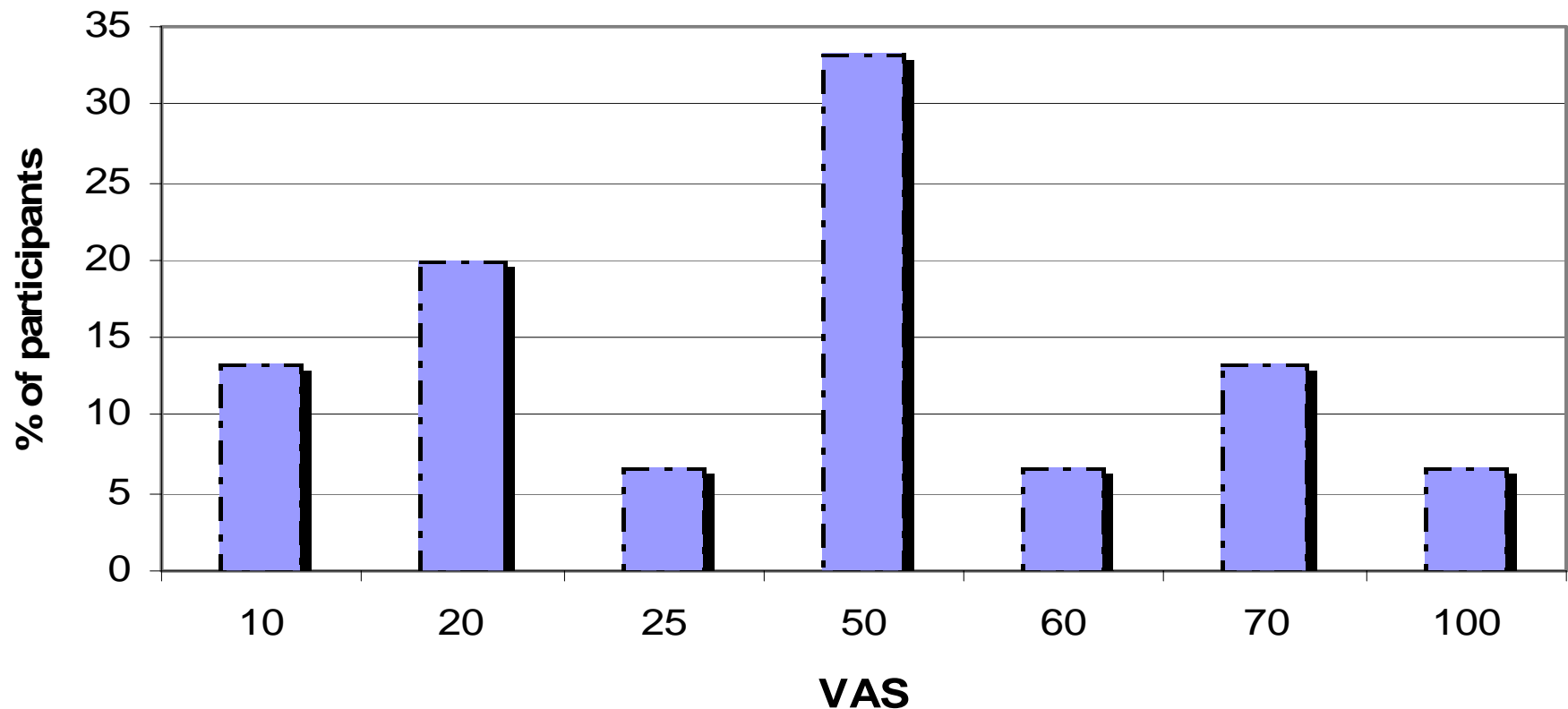
- N= 15 elderly residents (12 female 3 male) of the nursing home
- ages from 60 to 80  
median age : 71 years
- Areas of pain ⇒





**Pain intensity** was high;  
 $\geq 50$  on a 100 mm VAS for 60% of  
participants

Pain intensity for the elderly before intervention



Comparison of Pain scores (VAS) AT Timed Intervals; Data are Mean (SD)			
Time	VAS Mean (SD)		P value
Before Intervention (Week 1)	44 (26)		
	Not Watching picture	Watching picture	
Intervention <sup>a</sup>			
Week 2	46 (28)	16 (16)	0.002*
Week 3	37 (31)	18 (16)	0.021*
Week 4	36 (29)	22 (17)	0.078
Week 5	34 (28)	21 (13)	0.102
Post Intervention <sup>a</sup> (Week 6)	20 (13)		0.003*

<sup>a</sup> Paired t tests were used. A p value of <0.05 was considered statistically significant

Comparison of Quality of Life scores (SF-36) At Timed Intervals; Data are Mean (SD)			
	Baseline	6 weeks	P value
General health	3.7 (0.9)	3.9 (0.7)	0.157
Health transition	3.1 (0.8)	3.7 (0.8)	0.005*
Physical activities	12 (3.2)	10.9 (1.5)	0.105
Role - physical function	4.7 (1.3)	5.1 (1.7)	0.285
Role - emotional function	4. (1.4)	4.2 (1.4)	0.832
Extent of social activities	2.8 (0.8)	2.8 (0.9)	1.000
Degree of bodily pain	3.5 (0.9)	3.7 (0.9)	0.564
Limitation from bodily pain	2.9 (0.9)	3.1 (0.9)	0.317
Vitality / Mental health	29.4 (3.1)	31.1 (5.3)	0.230
Frequency of social activities	3.4 (0.8)	3.3 (0.8)	0.655
General health	11.2 (2.2)	11.1 (2.5)	0.887
Total scores	81 (10)	83 (7)	0.624



# Conclusion

- Older persons, suffering from severe chronic pain, affecting their quality of life
- Physiotherapy, stretching & standing exercise, important for health & well being for the older persons
- The use of affective images appears to be effective non-drug intervention to ↓ pain & ↑ **health related quality of life**

THANK  
YOU

