



“Comfy Acupressure for the Elderly” Improves the Quality of Life for the Elderly

A Study on Effects of Acupressure among the Frail Elderly

A collaborative research project by School of Chinese Medicine,
Li Ka Shing Faculty of Medicine, The University of Hong Kong and
Yan Chai Hospital Social Services Department



Frail Elderly



- ❑ **Prevalence of frailty increases with age.** As our life expectancy increases, there will be more elderly suffered from frailty in the later stage of their life.
- ❑ It is common for frail elderly to have **chronic diseases**, such as high blood pressure, heart disease, insomnia, dizziness, headache, and stiffness and pain of joints, which severely affect the health condition and quality of life of the elderly. As the ageing population grows, the increase in frail elderly will pose immense pressure on Hong Kong's healthcare system.
- ❑ Frailty could be initiated by single or multiple conditions including **malnutrition, chronic diseases, lack of exercise, stress and physiological or social changes caused by aging.**
- ❑ **Frailty could affect the emotional state** of the elderly, meanwhile, positive affect is protective against the functional and physical decline associated with frailty.
- ❑ There is **limited treatment or medication for frailty.** We believe that acupressure could be a possible non-invasive means to improve the general health conditions, including the emotional conditions of the frail elderly.



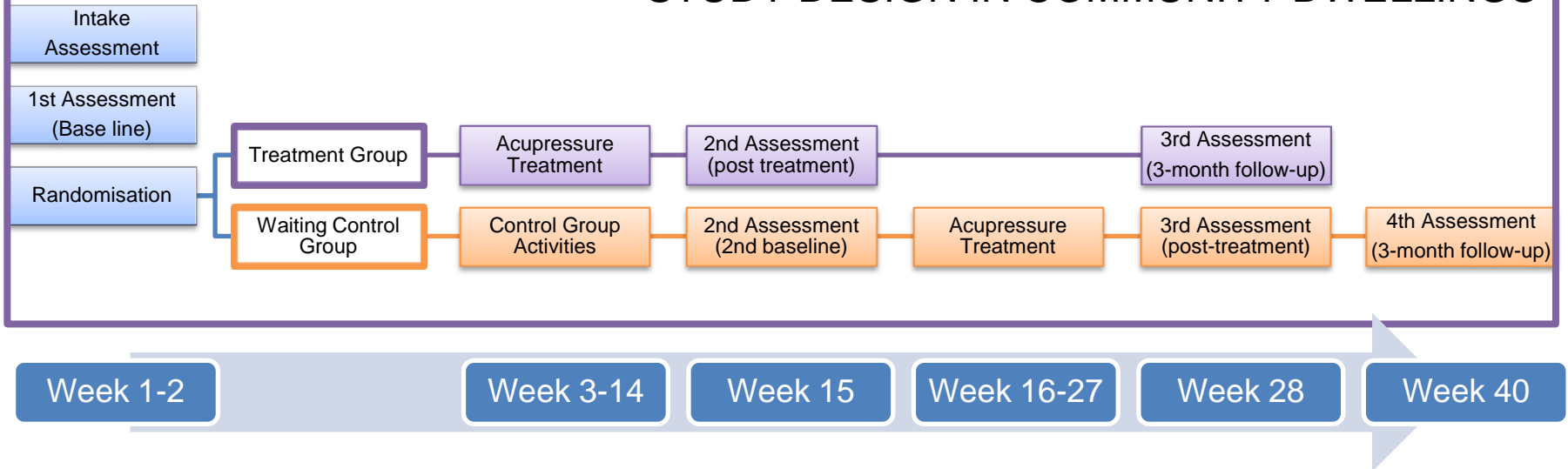
Research Objective



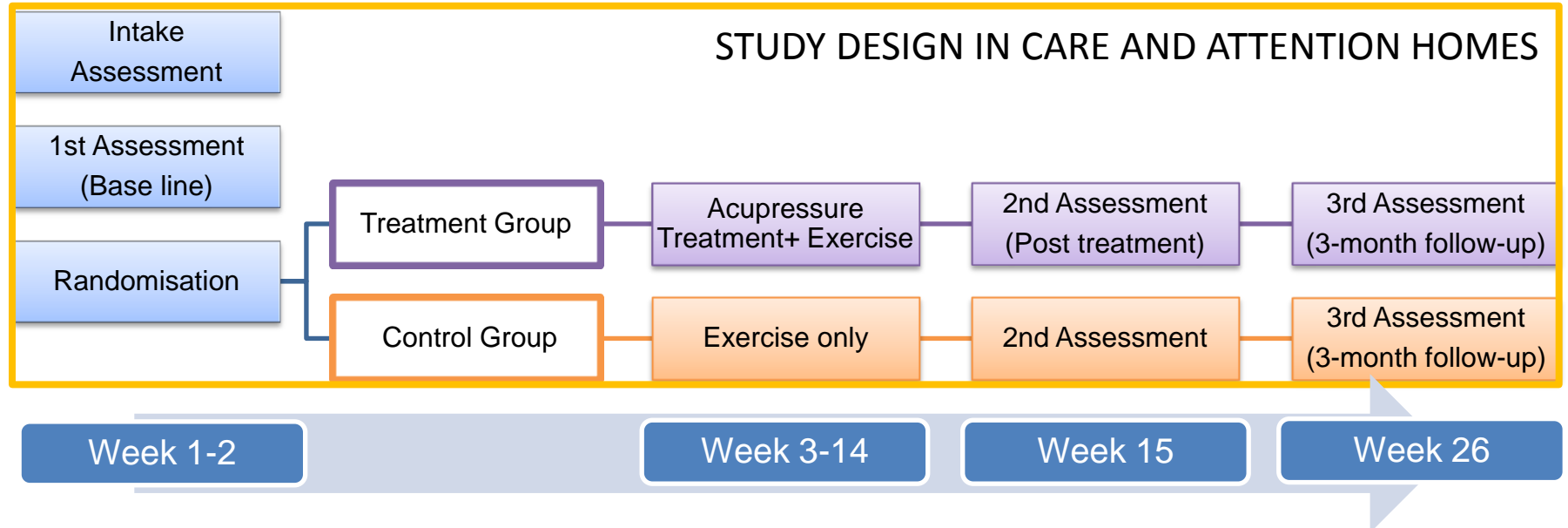
- ❑ Conduct a pragmatic randomised controlled trial (PRCT) to investigate if **acupressure** could help the frail elderly to improve their **general quality of life** including their physical health, social relationship, environment and psychological states.
- ❑ To study **the changes of cohesiveness and relationship between informal carers** (e.g. spouses, siblings and relatives) **and frail elderly** after the caregiver performing acupressure on the frail elderly on a regular basis after a certain period of time.
- ❑ To study the **improvements of frail elderly** in one or more of the following aspects:
 - Elderly's quality of life
 - Elderly's psychosocial functioning
 - Elderly's sleeping quality
 - Caregiver's stress level (when applicable)



STUDY DESIGN IN COMMUNITY DWELLINGS



STUDY DESIGN IN CARE AND ATTENTION HOMES



Research Design




- ❑ The 1st study was conducted in 4 elderly centres with a wait-list control design. 106 pairs of frail elders and caregivers were recruited, 79 pairs have completed the research.
- ❑ The 2nd study was conducted in 3 elderly homes. 65 frail elders were recruited, 56 elders have completed the research.
- ❑ The frail elders of treatment groups in both elderly centres and homes and the frail elders of wait-list control group in the elderly centres received 4 acupressure treatments a week for 12 weeks, twice from a registered Chinese Medicine Practitioner and twice from a designated informal caregiver.
- ❑ The participants' conditions were measured before intervention, after intervention and at 3 months after intervention.



Research Design



❑ Major measuring instruments:

	Study in Community Dwellings	Study in C&A Home
Quality of Life	WHOQOL-BREF	SF12v2
Psychological well-being and Mood	GDS-15 Geriatric Depression Scale	Pictorial Likert Scale 
Sleep Quality	Pittsburgh sleep quality index PSQI	
Pain Intensity	Visual Analogue Scale VAS	

❑ Data analysis

- ❑ Two independent samples T test is used to test the difference in the change in the outcome measures between the acupressure treatment group and the control group after intervention.
- ❑ Paired sample T test is used to further evaluate the efficacy of the acupressure protocol.
- ❑ SPSS version 22 is used for the analysis and level of significance at 5% is adopted.

Comfy Acupressure for the Elderly



- ❑ 12 steps concentrating on the acu-points on face, head, neck and shoulder.
- ❑ The protocol is designed to be operated by informal caregivers after proper training.
- ❑ All chosen acu-points are easy to locate.
- ❑ The total treatment process will last for approximately 15 minutes.



Comfy Acupressure for the Elderly



Operation Time: approximately 15 minutes

Operation Position: Sitting

	Procedure	Operation
1	Opening Tianmen (開天門)	10-15 times
2	Pushing Kangong (分推坎宮)	10-15 times
3	Pressing and Kneading Taiyang (按揉太陽)	10-15 times
4	Kneading Face (揉抹面部) [Yangbai(GB-14), Taiyang(Extra 2), Quanliao(SI-18), Yingxiang(LI-20), Jiache(ST-6), dicang (ST-4) Chentjiang(HN-24)]	3-5 times
5	Grasping Wu Jing (拿五經)	3-5 mins
6	Pressing and Kneading Fengchi (GB-20)(按揉風池)	3-5 times
7	Pressing and Kneading the neck (按揉頸項部)	3-5 mins
8	Pressing and Kneading Jianjing (GB-21)(按揉肩井)	3-5 mins
9	Pressing and Kneading Tianzong (SI-11)(按揉天宗)	3-5 times
10	Pushing Qiaogong (推橋弓)	30-50 times
11	Grasping Jianjing (GB-21) (拿肩井)	3-5 times
12	Grasping Hegu (LI-4) (拿合谷)	3-5 times



Comfy Acupressure for the Elderly



Practicality

The therapy is designed to

- be applied in sitting or lying position
- integrate operation technique with specific acu-points
- have an easy to remember sequence with specific timeline

The design has excluded all operation technique that requires professional training, so that it can be operated by care-givers

The therapy is designed according to the principles of

- easy to learn
- easy to apply
- easy to achieve clinical results

Clinical relevance

Focus on the scalp and face to

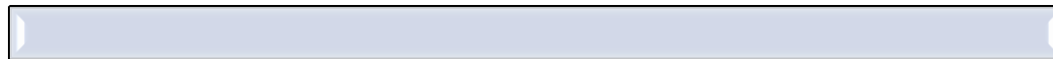
- improve the blood circulation of the head area
- lower the blood pressure
- release the stress
- brighten the senses
- calm the frail elderly

Mental health related issue has a close relationship of deterioration of brain function>>therapy is designed to focus on the acu-points of head & cervical area

Acu-points and techniques are selected according to the TCM principals and clinical efficacy

Promote widely in the community

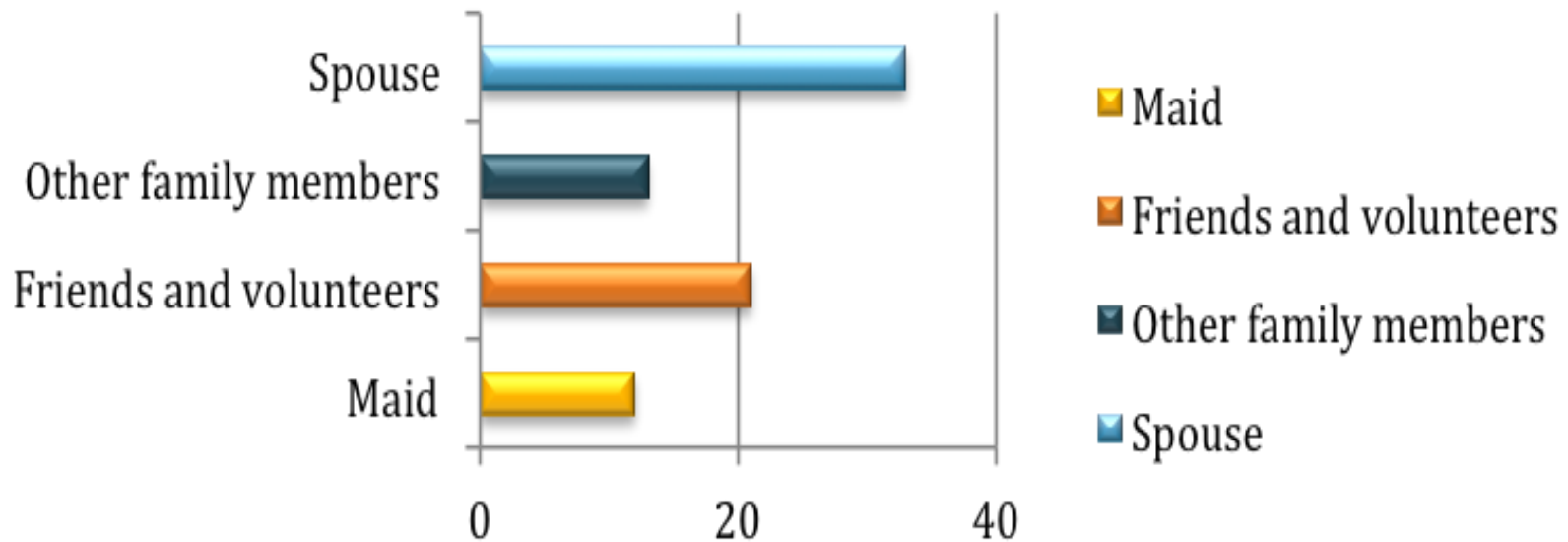
Improve the quality of life of frail elderly



Research Findings in Community



- ❑ The average age of the elderly completed the program is 75.95.
- ❑ The relationship of the caregivers to the elderly:



Research Findings in Community



- ❑ In the treatment vs control group analysis, the frail elders in the treatment group showed significant improvement ($p < 0.05$) in all domains of quality of life in WHOQOL BREF (a cross cultural quality of life measuring instrument developed by World Health Organization) as compared to the control group.
- ❑ In our post-treatment analysis, all 79 frail elders had significant positive changes in physical health, social relationship and environment domains.
- ❑ There were significant difference in the following areas after the frail elders received acupressure treatment:
 - less restrained by their physical pain;
 - more satisfied with their ability to perform the daily living activities and their work capacities;
 - have more energy for everyday life;
 - significantly higher satisfaction in social relationship;
 - higher ability to concentrate;
 - feel safer in their daily life and more informed.
- ❑ The most significant change is the reduction of constraints caused by physical pain, followed by increased ability to concentrate and increased ability to perform the daily living activities. ($p < 0.01$)



Research Findings in Community



- ❑ The frail elders had 15% improvements in physical domain and 30% improvement in self-perceived physical-pain induced constraints.
- ❑ There was 8% increase in their satisfaction in the ability to perform daily living activities.
- ❑ Both pain occurrence frequency and pain intensity of the most disturbing location are reduced significantly after treatment. The pain reduction in VAS scale exceeds 20%.
- ❑ The participants in the community also benefited from a better mood after treatment. The mean score of both Geriatric Depression Scale (GDS) reduced significantly.
- ❑ Pittsburgh Sleep Quality Index (PSQI) also reduced significantly after treatment. The detailed analysis of the 7 components that make up the PSQI score indicating that the difference is mainly driven by the improvement of subjective sleeping quality, sleep latency, and daytime dysfunction of the treatment group.



Research Findings in Community



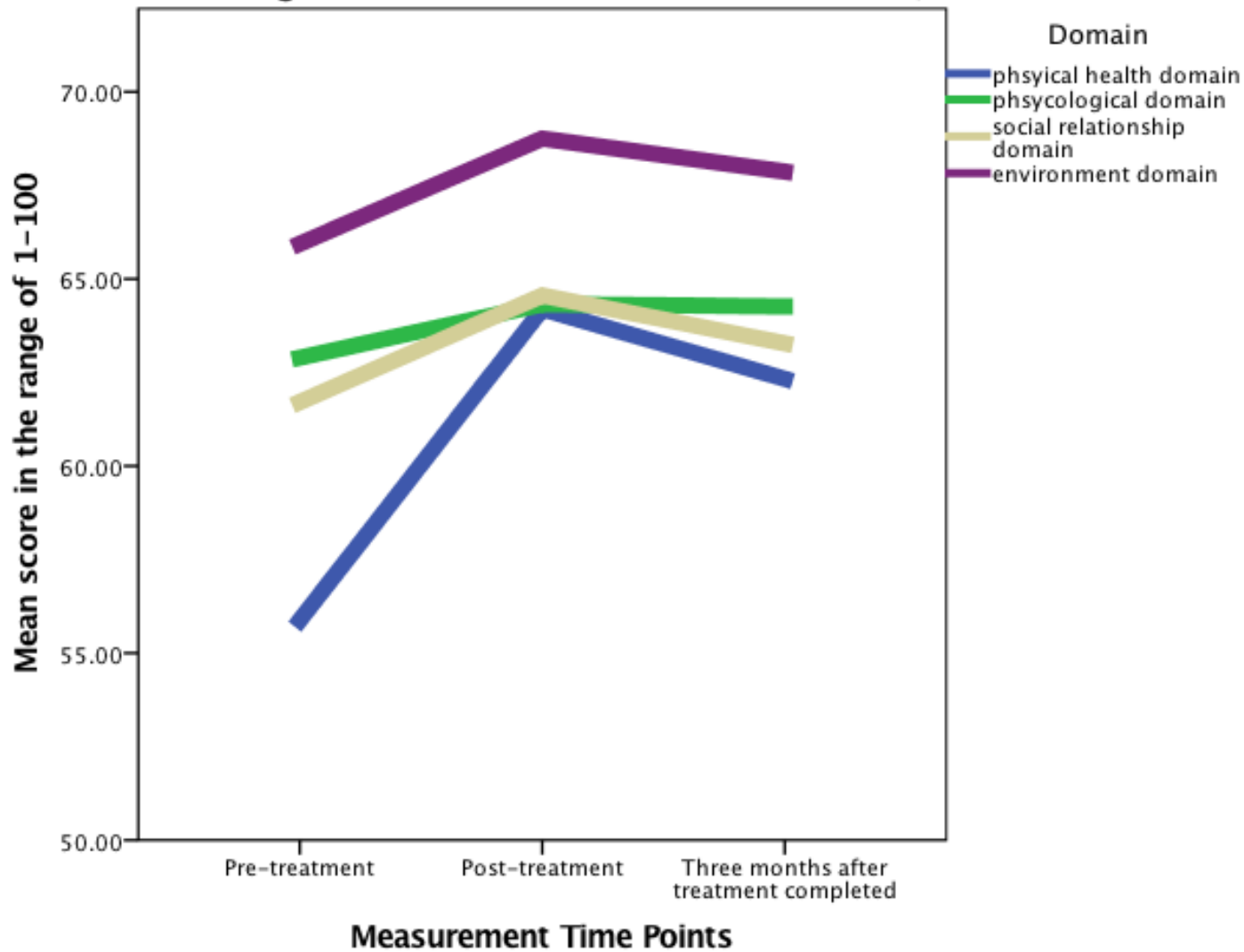
- ❑ At the 3 months' follow up after the treatment, the frail elders still had significant improvements in the following 4 indicators:
 - Physical health domain of WHOQOL-BREF
 - Reduction of pain frequency and intensity
 - GDS score
 - Subjective sleep quality and reduction of sleeping disturbance in PSQI score



WHOQoL Domains



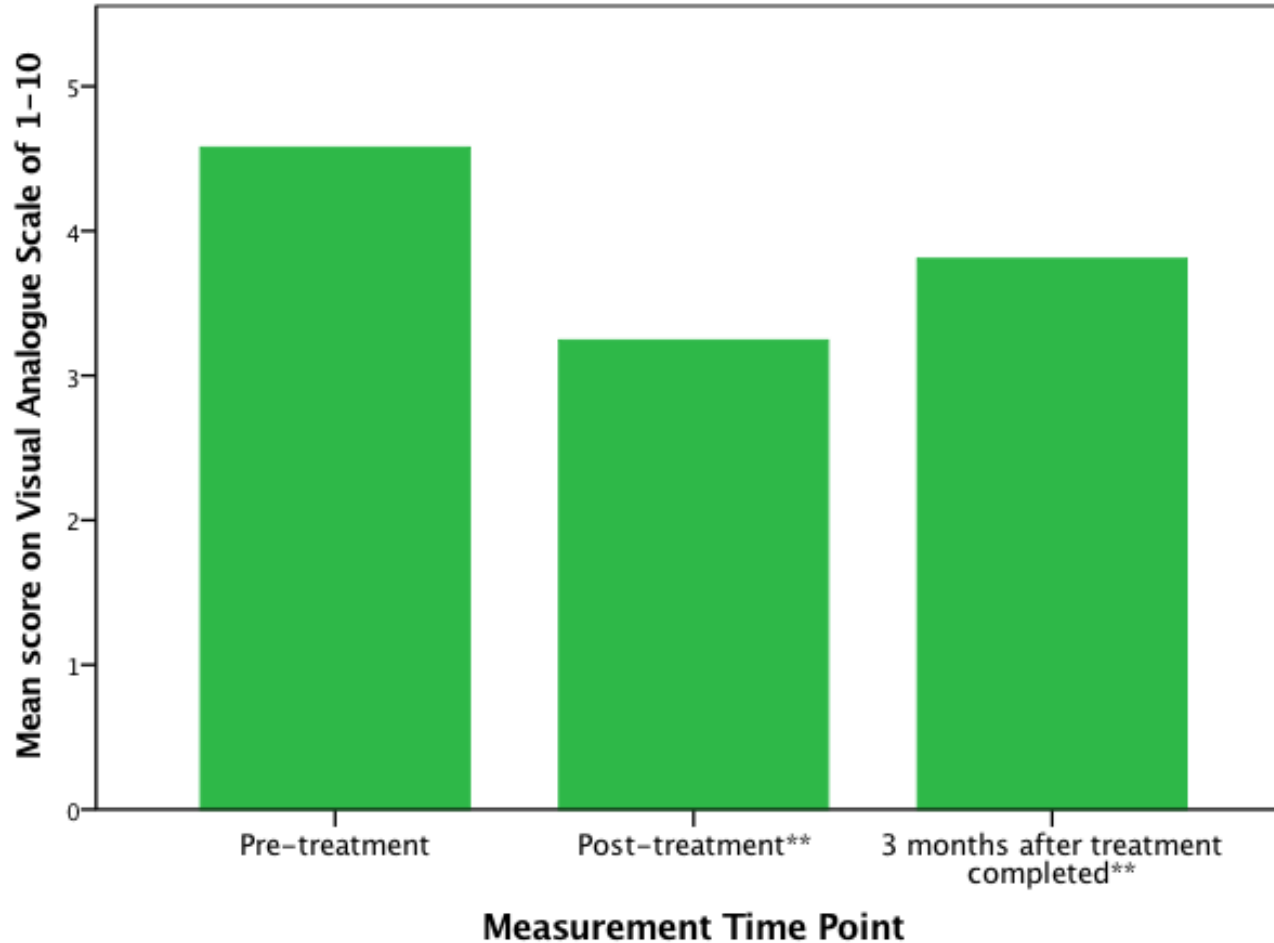
Change of the mean domain scores in WHOQOL-BREF



Change in Pain Intensity (VAS)

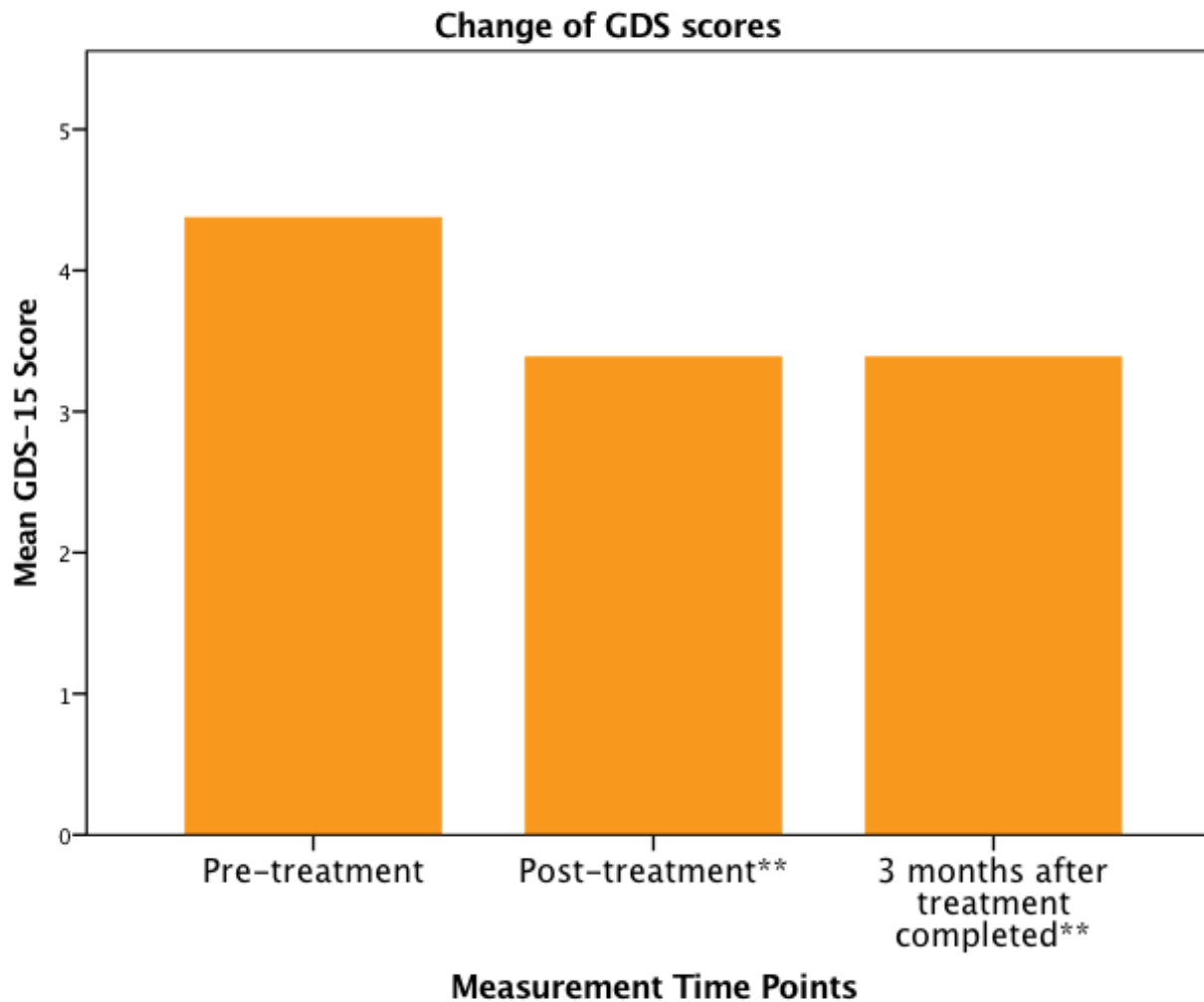


The Change of Pain Intensity at the most disturbing pain position



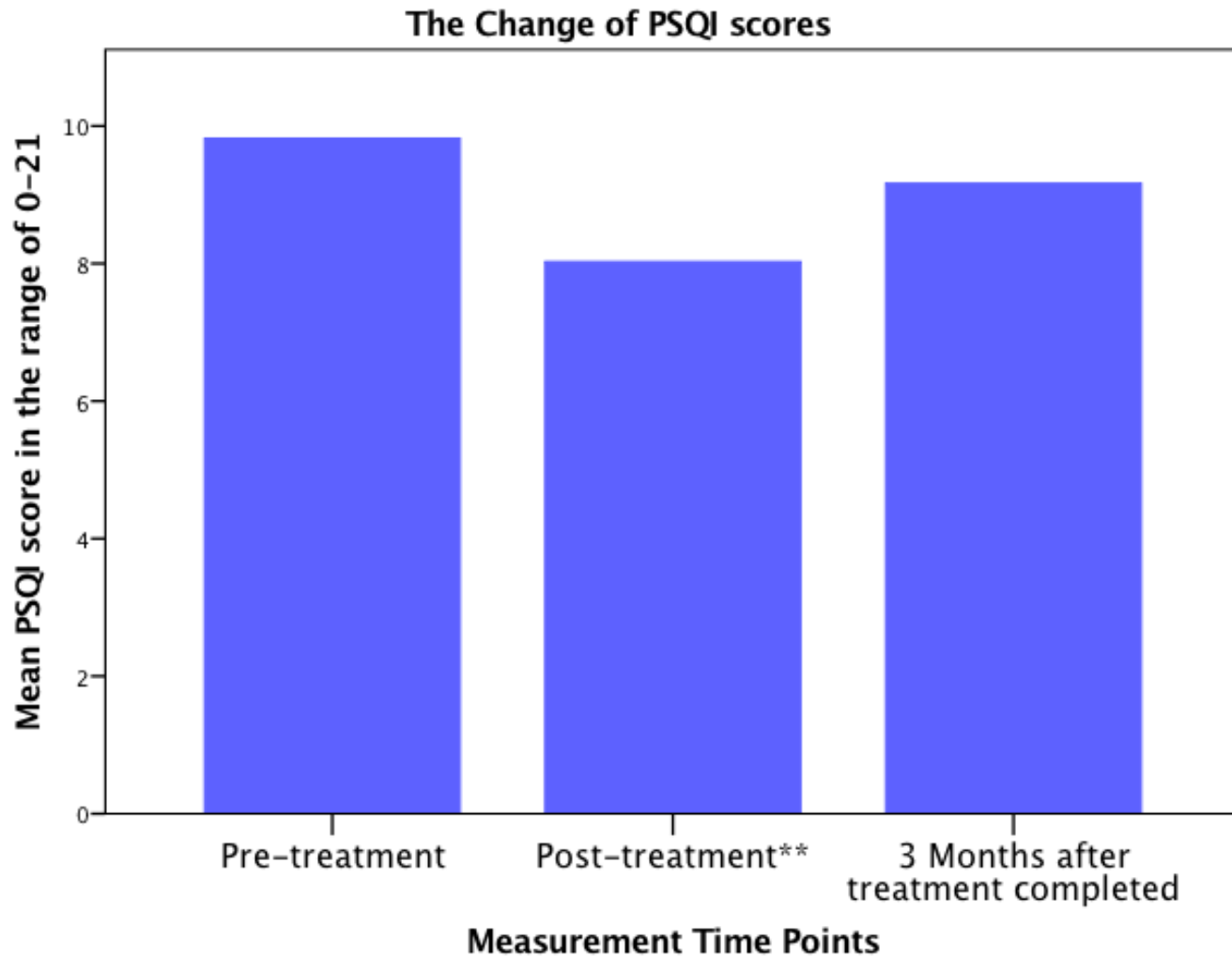
**denotes change is significant as compared to the Pre-treatment measurement

GDS-15 Score



**denotes change is significant as compared to the Pre-treatment measurement

Change in PSQI Score



** denotes change is significant as compared to the pre-treatment measurement

Care-givers' Change



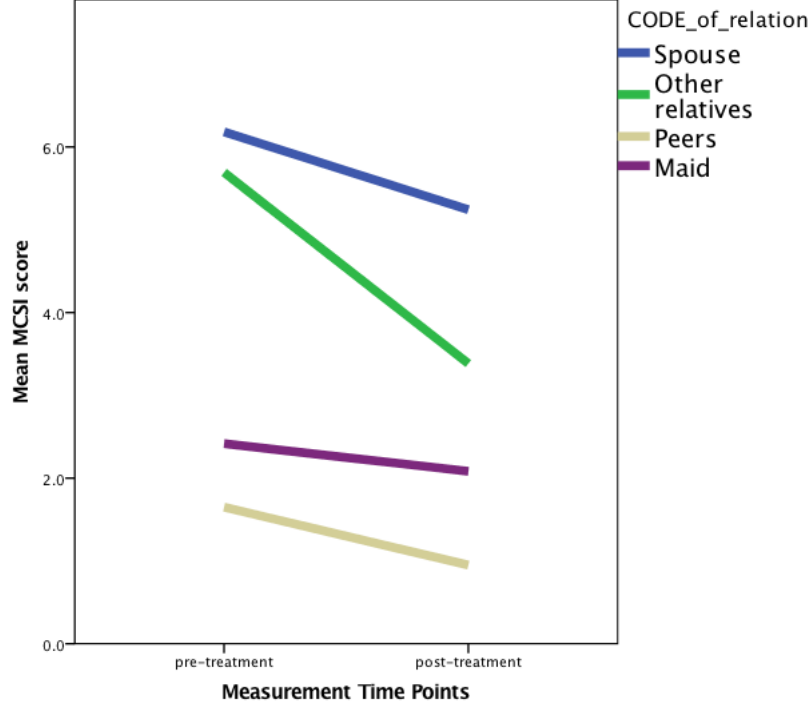
- ❑ In this research, we have also captured the Caregiver's Strain Index (MCSI) and self-perceived stress level in visual analogue scale. The measurements were taken before and after treatment by interview.
- ❑ The results indicated that the caregivers' strain index and stress level were both significantly reduced after the 3 months treatment period. The research finds that the caregivers' strain and stress level had significantly reduced by 20% after treatment.
- ❑ When taking a closer look at the caregivers relationship to the elderly, it is very obvious that the caregivers who are the direct relatives of the elders started with a much higher stress level, in comparison with non-directly related caregivers, like friends and maids. 58% of the caregivers are directly related to the frail elders, with 42% of the caregivers in our study were spouses of the frail elders who were of a similar age
- ❑ The caregivers who are direct relatives of the elderly also experienced a sharper drop in both MCSI score and the stress index, although the difference is not statistically significant.



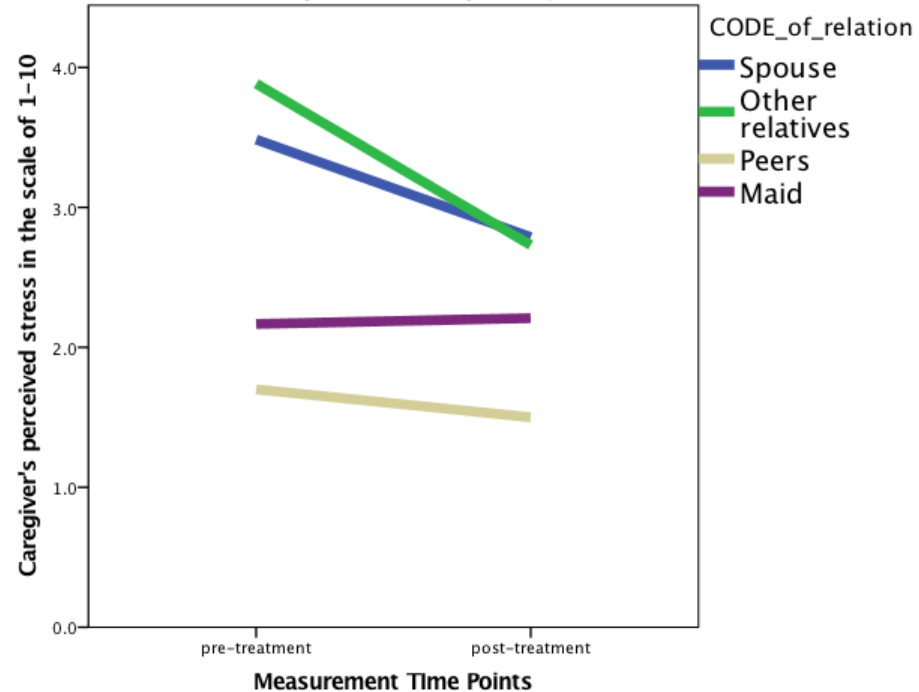
Care-givers' Change



The Change of MCSI score of the caregivers



The change of the caregivers' perceived stress



Research Findings in C&A Homes



- ❑ The mean age of the frail elders completed the programme is 83.41.
- ❑ In comparing with the control group
 - the treatment group is significantly more happy;
 - has a significant improvement in physical condition (as reflected by PCS score in SF-12); and
 - a significant improvement in sleeping quality (as reflected by the reduction of PSQI score).
- ❑ However, no significant difference is detected in MCS mental score of SF-12 nor the change in pain intensity and pain frequency despite improvements were shown in these areas.



Research Findings in Homes



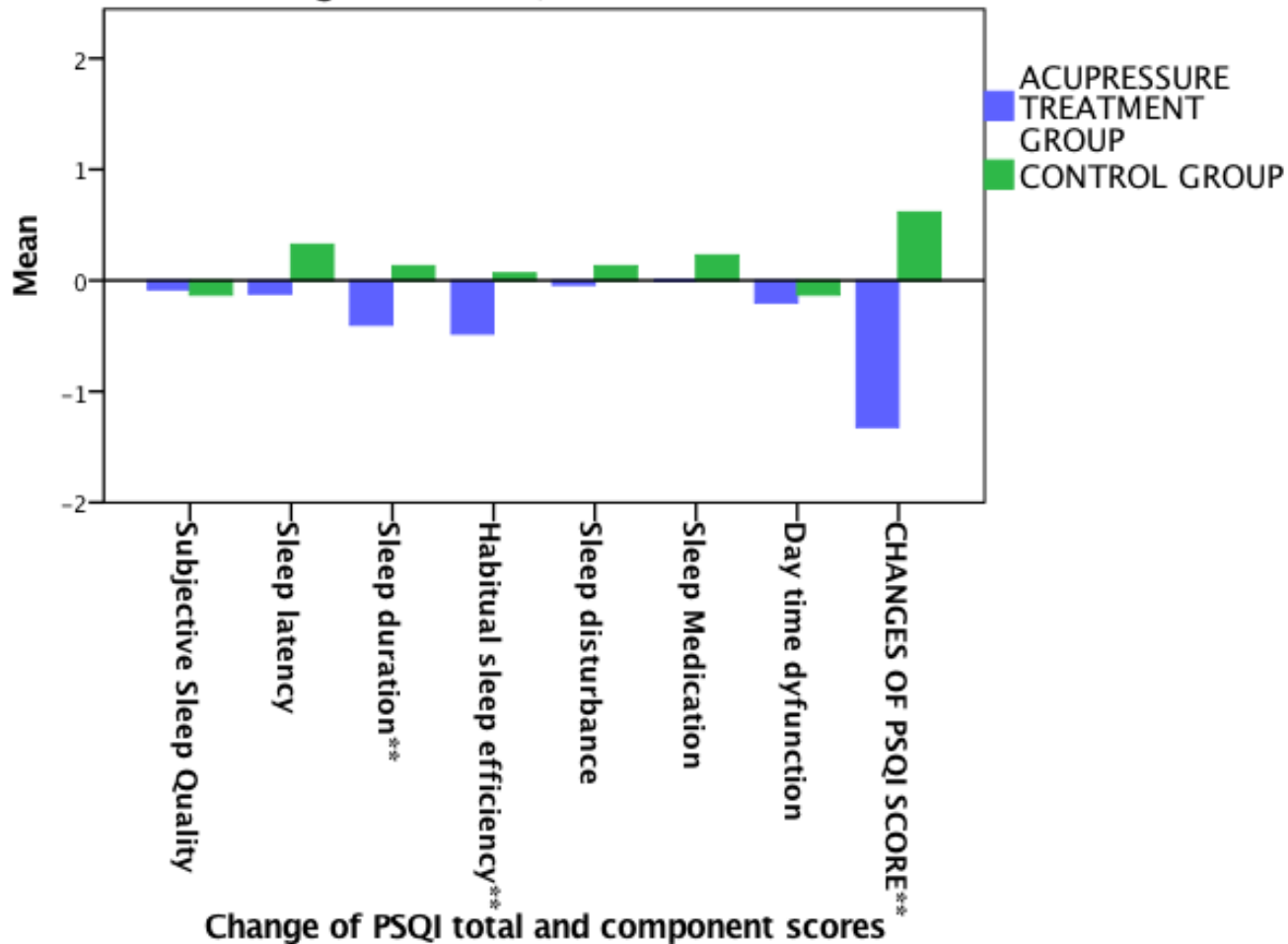
- ❑ The improvements before and after acupressure treatment by using pair T test in the increase of happiness score and the reduction of PSQI score are significant.
- ❑ The improvement of the sleeping quality is mainly driven by the longer sleeping duration and higher sleeping efficiency.
- ❑ However, the change of PCS score is not significant despite there is a 10% increase in mean score. This may be due to the small sample size with a wide SD, a bigger research may need to be conducted to further confirm the benefit.
- ❑ Significant differences in a positive direction were found in the domains of
 - Role physical
 - Vitality
 - Social functioning
- ❑ After the treatment, the elders felt more energetic; experienced less physical constraints in accomplishing what they needed or wanted to do, and less interference on their social activities.



Change of PSQI



The Change of the PSQI scores after 12 weeks' intervention

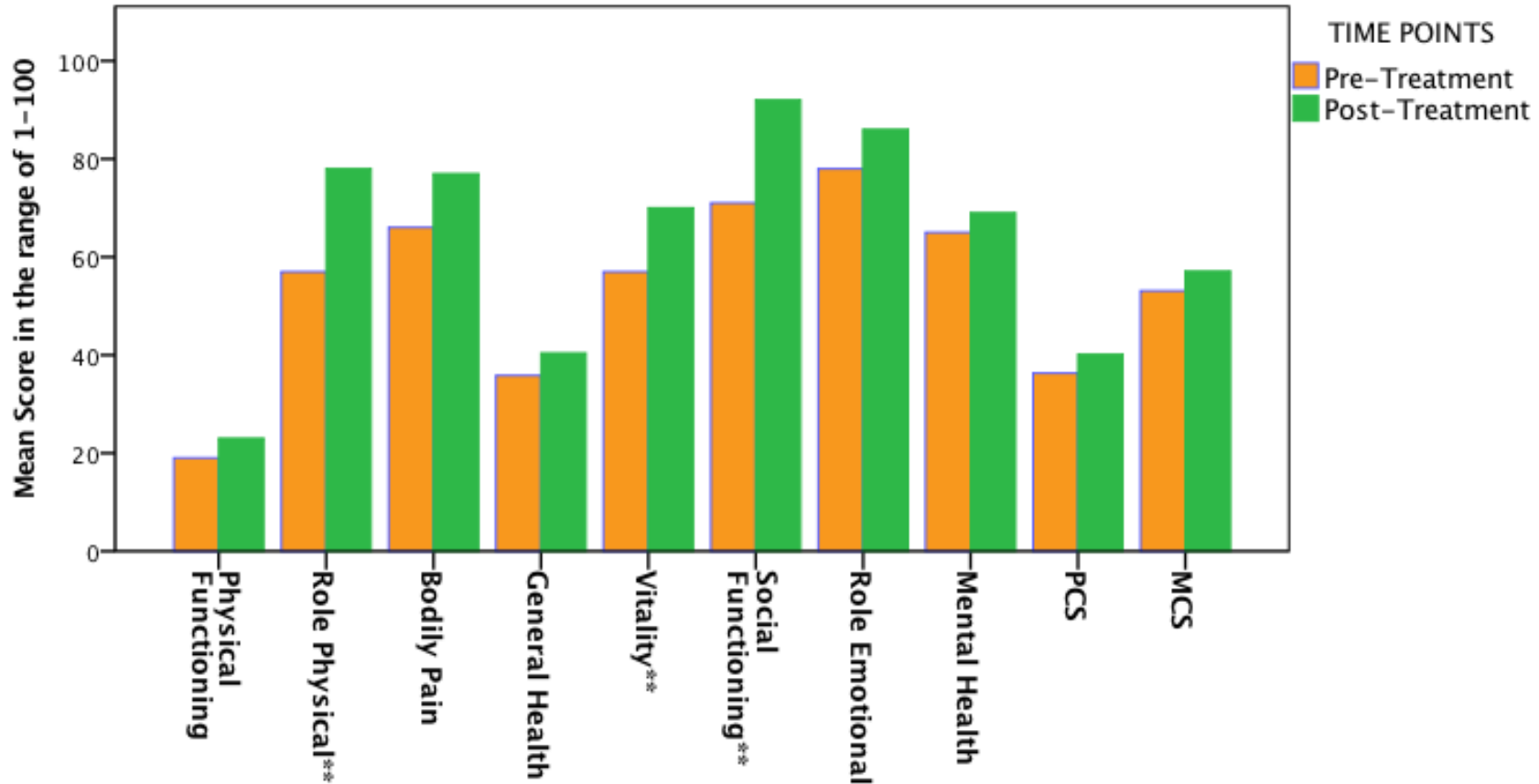


**Denote significant different between groups. Reduction of score indicate improvement in sleep quality

Change in SF-12v2 after 12-week Treatment Group



The Change of PCS, MCS, and 8 domains of QoL in SF12v2 among the elderly in the treatment group



Higher score indicate a better Quality of Life, **denotes the change is significant after treatment



THANK YOU



How to Apply Comfy Acupressure in Elderly Services

Mr. Lai Kwok Wing
General Manager (Social Services)
Yan Chai Hospital Social Services Department

30-3-2016





Application of Comfy Acupressure to Residential Services for the Elderly

1. All the **carers of our residents**, including guarantors, family members, domestic helpers can attend our training courses on **"Comfy Acupressure"** for free.
2. Our Physiotherapists will be the instructors of the training courses.
3. We encourage the **trained carers** to apply **Comfy Acupressure** at our Residential Homes.





Distribution of the Comfy Acupressure Manuals

1. When to distribute?
The Comfy Acupressure Manuals will be **distributed for free starting from the 18th of April, 2016.**
2. Reservation
Please call Miss Shirley Chan at 2409 2888 for **reservation** and **collection.**
3. Collection Point
7/F., Yan Chai Hospital Social Services Complex, 18 Yan Chai Street, Tsuen Wan, N.T.

Remark : **Please collect the manuals in person**



Yan Chai Comfy Acupressure Training Courses

1. YCHSS Professional Training Centre will launch courses on Yan Chai Comfy Acupressure Training Courses.
2. Registered Chinese Medicine Practitioners will be the instructors of the courses.
3. The first course is estimated to be launched in July 2016.
4. **All, interested parties are welcomed priority will be given to those carers of the aged.**
5. Further information on the Comfy Acupressure Training Courses will be posted on our website :

<http://www.ychss.org.hk>



Enquiry

Please make enquiries **starting from 31.3.2016**, from Monday to Friday, **10am to 5pm** by :

1. Tel. Enquiry : 2409 2888 Miss Shirley Chan
2. Email Enquiry : [general @ychss.org.hk](mailto:general@ychss.org.hk)
3. Address : 7/F., Yan Chai Hospital Social Services Complex, 18 Yan Chai Street, Tsuen Wan, N.T.



Thank You!