

# OT Management of Chronic Pain A Strength-based Approach

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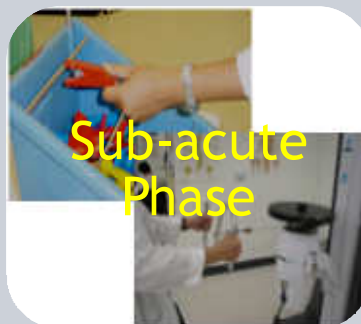
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United Christian Hospital

Conventional Approach used by  
OT in Chronic Pain Management

## Conventional Occupational Therapy Approach

- Viewing pain as symptom secondary to primary injury / illness
- Focus on solving discrete problems:
  - Reduction of pain level
  - Inflammatory control
  - Training and regaining ROM + strength
  - Functional improvement
  - Remediation of disabilities

## The OT Management Continuum



# Conventional OT strategies

Corset



Splints for protection, resting and symptom control

# Conventional OT strategies

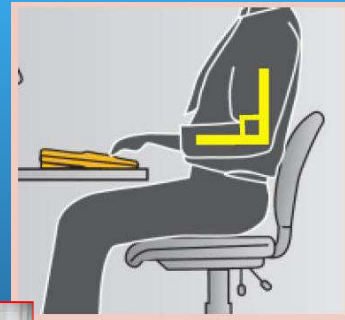


Remedial & functional training

Work assessment, conditioning and hardening



# Conventional OT strategies



Office ergonomics



Postural advice, aids and gadgets prescription for ADL & IADL

# Conventional OT strategies - WR training



Transportation work in warehouse



Out-door training



Work simulation



Actual work task training



Carrying and climbing stair training: logistic/ transportation worker



Push/ pull sled (Graded weight)

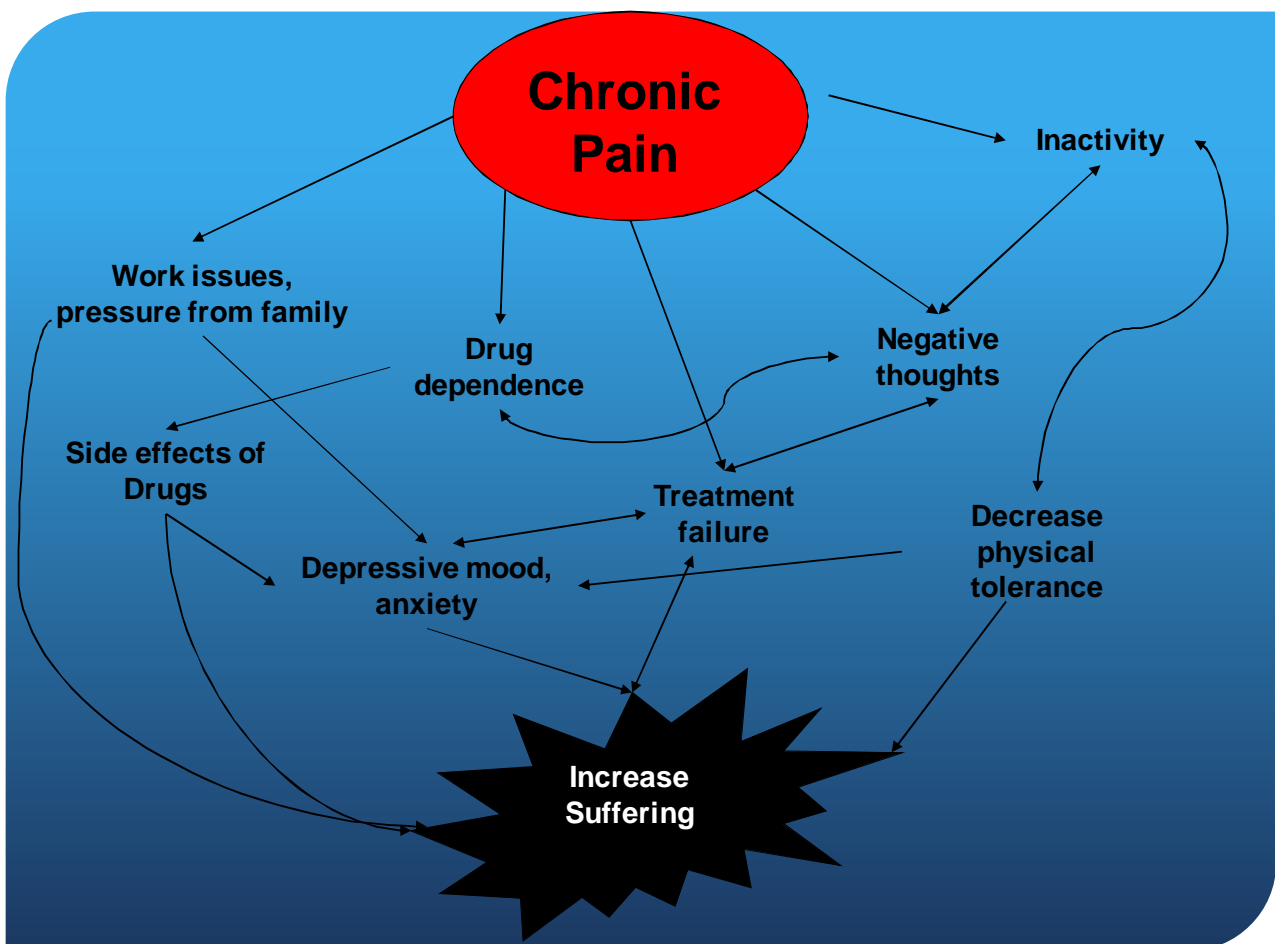
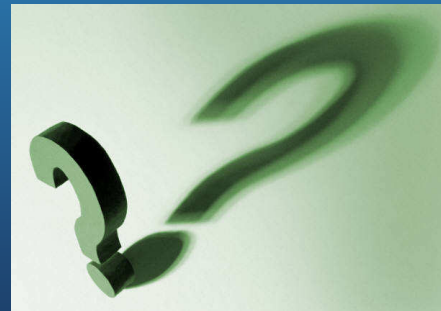


Shoveling



Use of Cleansing trolley

However, are they enough for managing chronic pain?



# The Interplay of the Systems in the Biopsychosocial Model

## The World

### Social Systems

- E.g.
- Society
  - Community
  - Family

## The Person

### Psychological Systems (experience & behavior)

- E.g.
- Cognition
  - Emotion
  - Motivation

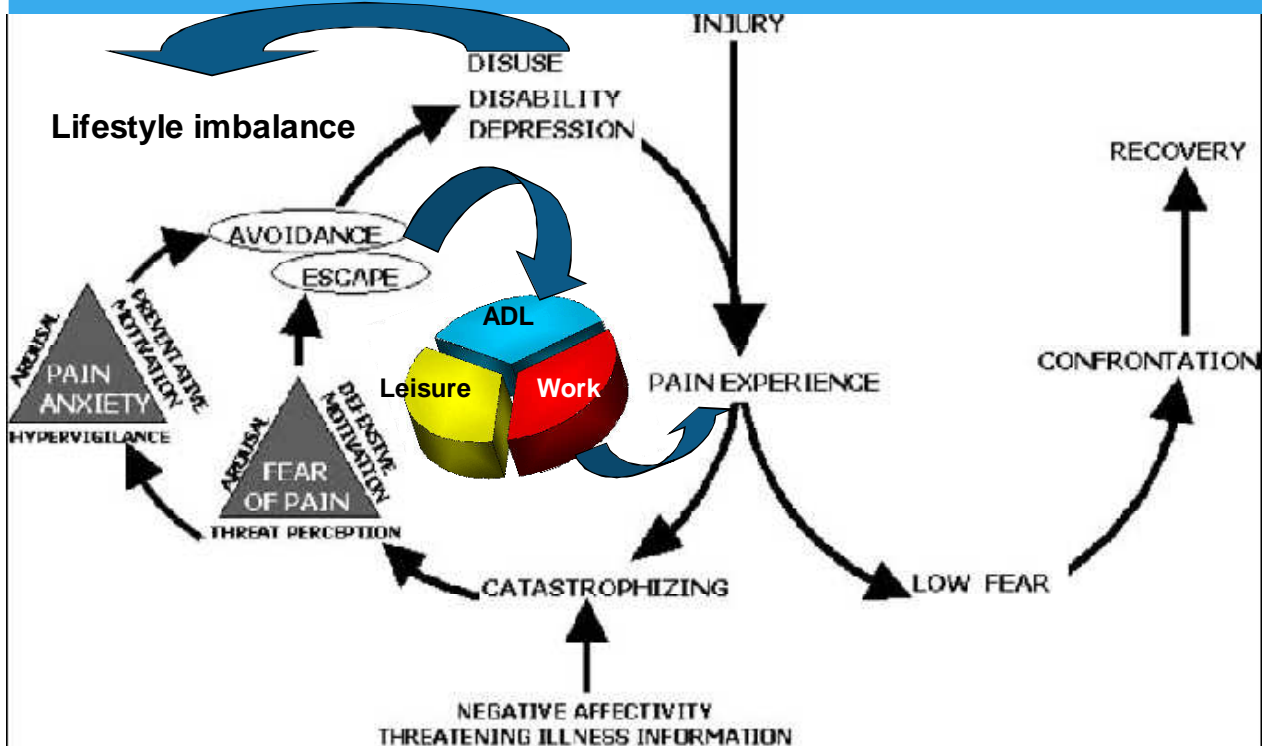
### Biological Systems (genetics & physiology)

- E.g.
- Organs
  - Tissues
  - Cells

### SPiritUAL

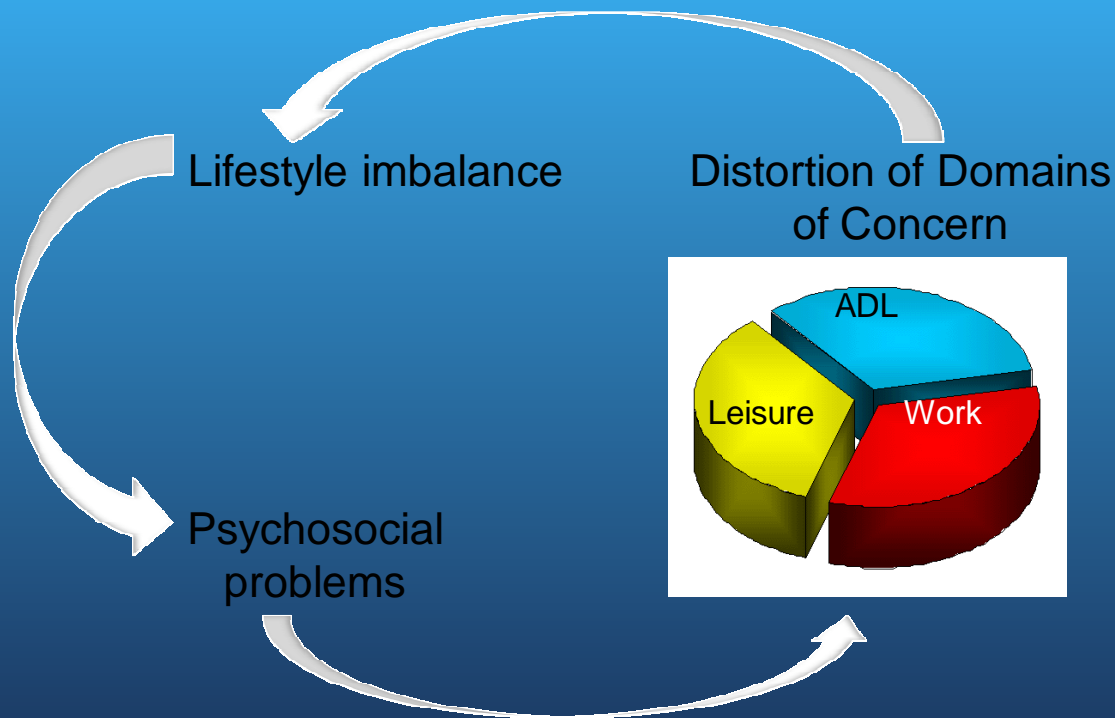
- Hope
- Love
- Faith

# The Fear Avoidance Model for Chronic Pain



The fear-avoidance model of chronic pain. Based on the fear-avoidance model of Vlaeyen and Linton (2000) and the fear-anxiety-avoidance model of Asmundson *et al.* (2004).

## Dysfunctional Pattern / Vicious Cycle caused by Chronic Pain



## Paradigm Shift from Conventional Approach to Strength-based Approach

Pain as Symptom	Pain as Disease
Symptom management	Disease management
Problem-focused	Solution-focused, emphasizes strength, ability and inner resources
Pain-coping	Lifestyle Redesign



## Conventional Approach

- Focused on problem-solving: asking “**what’s wrong?**”
- Exploration of patient’s **problems/pain**
- Resolution of problem developed solely out of knowledge gained from problem discussion
- Encourage discussion of e.g. frequency, intensity, duration, cause of problems

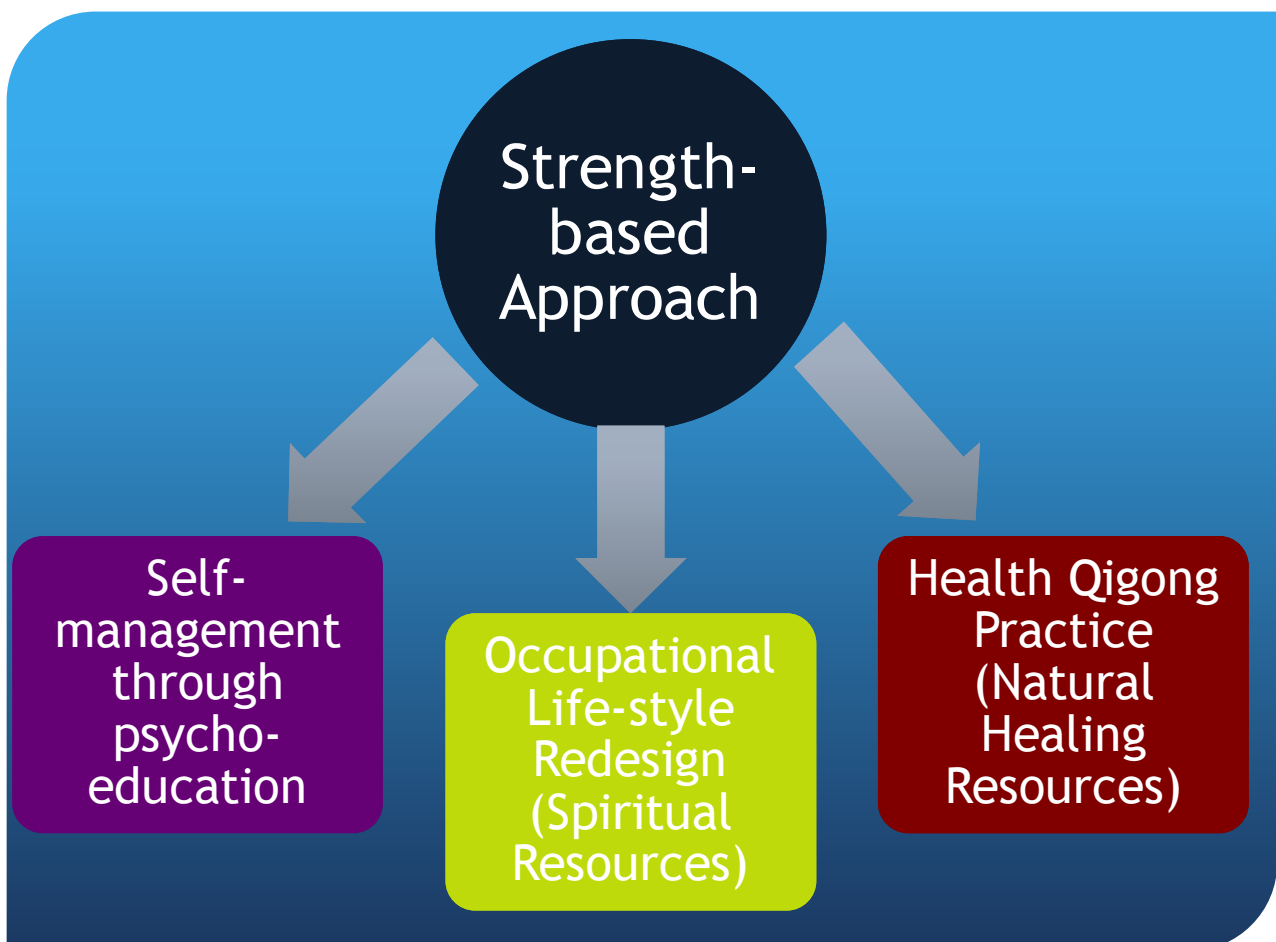
## Strength-based Approach

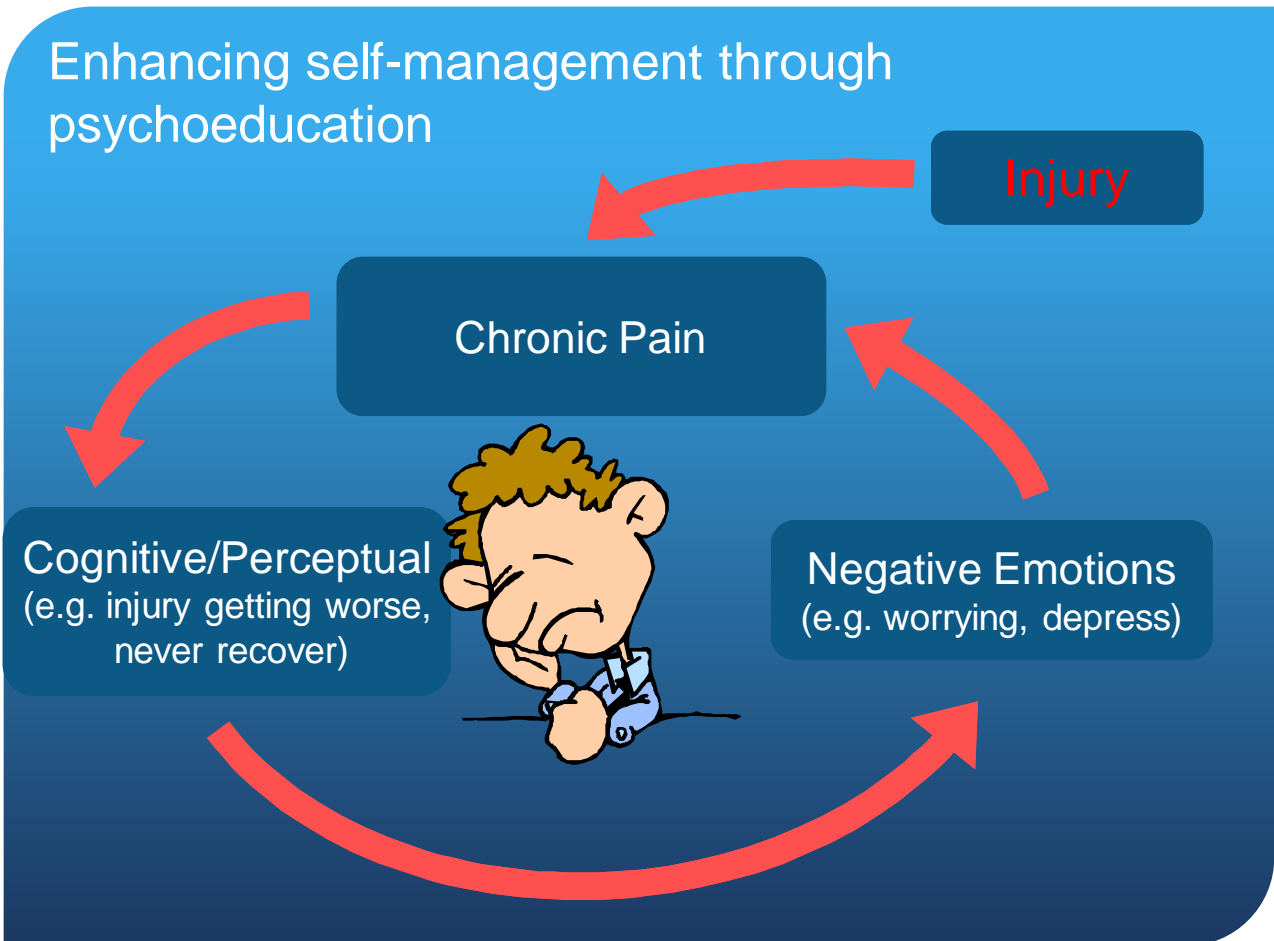
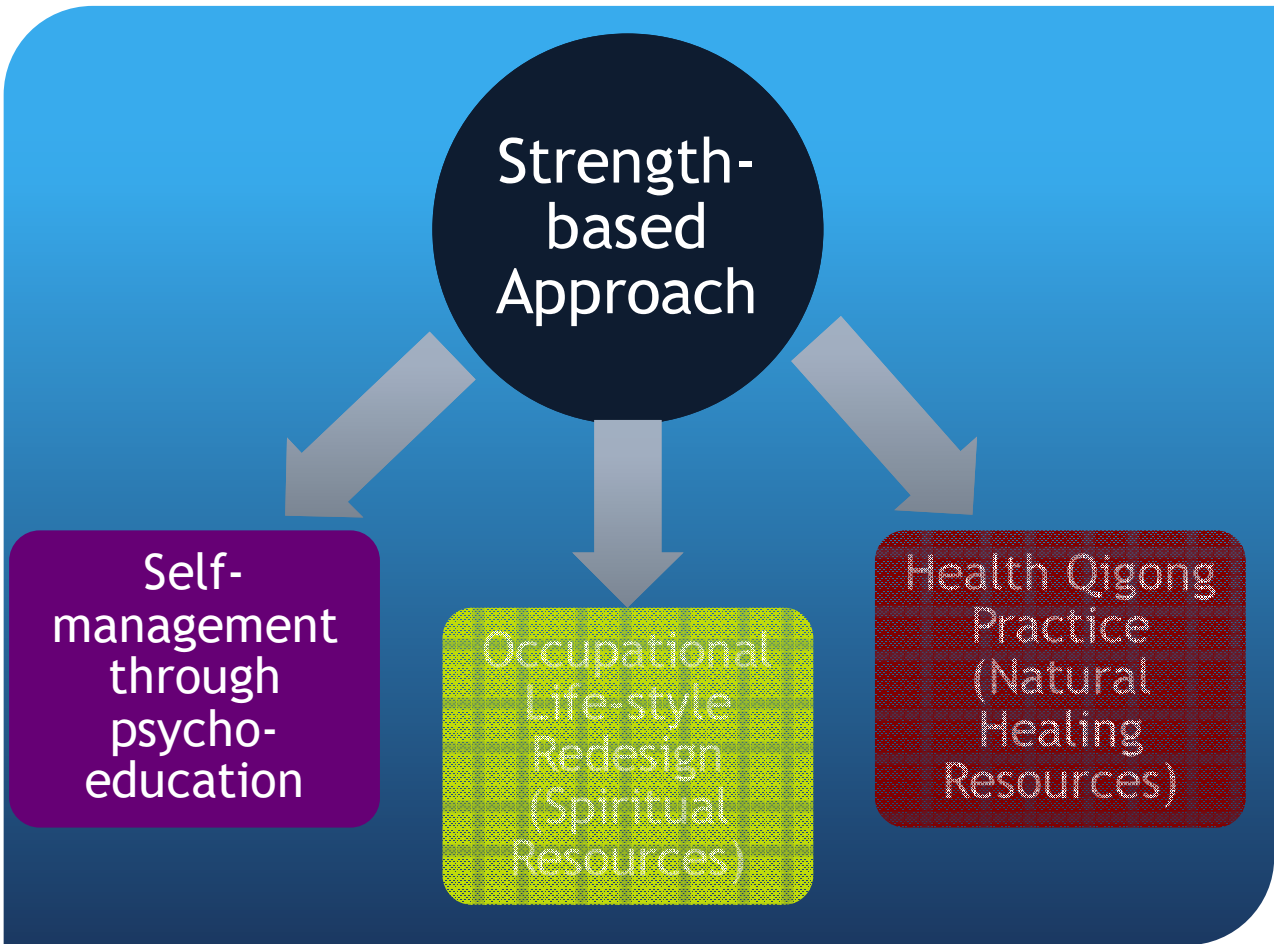
- Focused on goals / success: asking “**what are your strengths/abilities?**”
- Exploration of patient’s **strengths / resources**
- Create a vision of future where patient is coping as well as possible



# Strength-based Approach

- Operational Components:
  - Identify patient's personal strengths and resources
  - Exploration of life goals
  - Strengths are mobilized and goals are clarified
  - Solutions are co-constructed by therapist and patient
  - Understanding of discrete individual problem is not a necessary pre-condition





# The UCH Chronic Pain Management Group

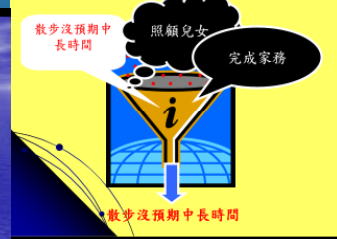
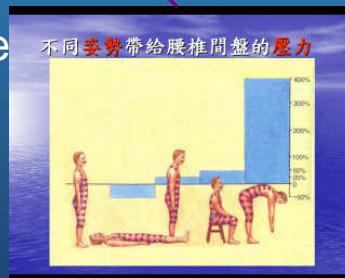
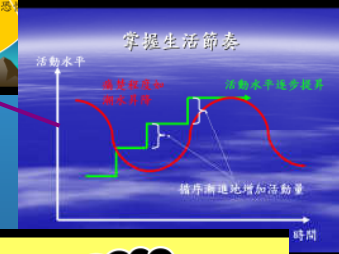
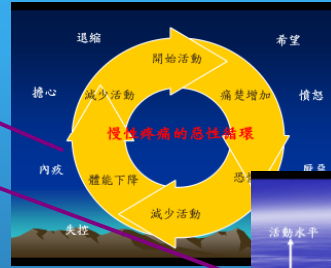


## Goals

- Empowering patients through psycho-education & group support
- Improve self-efficacy by activities engagement, including practice of health qigong Baduanjin (八段錦)
- Promote better coping and minimizing disabilities secondary to pain by increasing knowledge in pain
- Cognitive restructuring: Identify and dispute self-defeating statements and negative thoughts

# Program Outline

1. Understanding Chronic Pain
2. Goal setting and Pacing
3. Disputing negative thoughts
4. Back care knowledge
5. Relaxation Technique
6. Sleep and Sex issue
7. Summary
  - Post-1/12 FU
  - ALL Sessions: 八段錦 Practice



## Summary of Results (since late 2007)

### Past results:

- No. of treatment groups conducted: 7
- Total no. of patients completed treatment: 40

### Feedback from Patients:

- Positive feedback from patients after health qigong practice including: better trunk flexibility, better self-efficacy in coping with pain and also more positive mood



## Strength-based Approach – Occupational Life-style Redesign

What is OSLR?

- Using coaching as one of the techniques
- Focusing on patient's ability, strength, solution-focused, goal setting
- Aim at building resilience by pursuing happiness-inducing or more health and wellness activities

## Some typical strategies & techniques patient gained in OLSR program for pain

- **Activity Selection technique** (e.g. Priority assessment, Activity analysis)
- **Activity Performance technique**
  - Timing and pacing
  - Work process strategies (Work simplification, energies conservation)
  - Environmental adaptation / Use of assistive devices and furniture
- **Lifestyle Strategies**
  - Adopt new attitude (Accept the existence and persistent of pain)
  - Stop fighting with pain, start living with pain
  - **Focus on achieving what you want to do rather than elimination of pain**

## Pain Coping Strategies & Technique

### Solution Focused Strategies of Pain Coping

- **Therapist/Coach asking:**
  - Observe what works for yourself & do more
  - Observe what works for others & try if it works for you as well
  - Do what works for yourself often and avoid doing those don't work

### Pain coping strategies

- Observe and aware of antecedent event, timing and environment that trigger pain, aware and avoid those activities
- Aware personal ways of minimizing aggravation of pain / reducing intensity of pain
- Learn what to do and what not to do during pain
- Right attitude of the use of pain control medicine

**\*Solution generated from patients, not spoon-fed by therapist!**

## Anticipated Outcome of OLSR

- Immediate outcomes
  - Increase participation in happiness-inducing activities
  - Improve mood and self efficacy in coping with pain
  - Enhance knowledge & skills for adapting to pain
- Intermediate outcomes
  - Reflect on personal thinking, attitude, believe, interests
- Ultimate outcomes
  - Redesigning and reconstruction of habit, life role, lifestyle and life functioning
  - More competent overcoming upcoming life challenges

## Occupational Lifestyle Re-design Group Program – QEH Experience

- Integrate occupational therapy and life coaching
- 10 weekly 3-hours sessions in 3 months
  - 8 indoor & 2 outdoor sessions
- Provide a road map for changes
- Teach strategies for living successfully with pain
- Coach the journey of change
  - Instead of problem solving, emphasize on pursuit of happiness inducing activities
  - Experiment the learned adaptive strategies and skills in everyday life

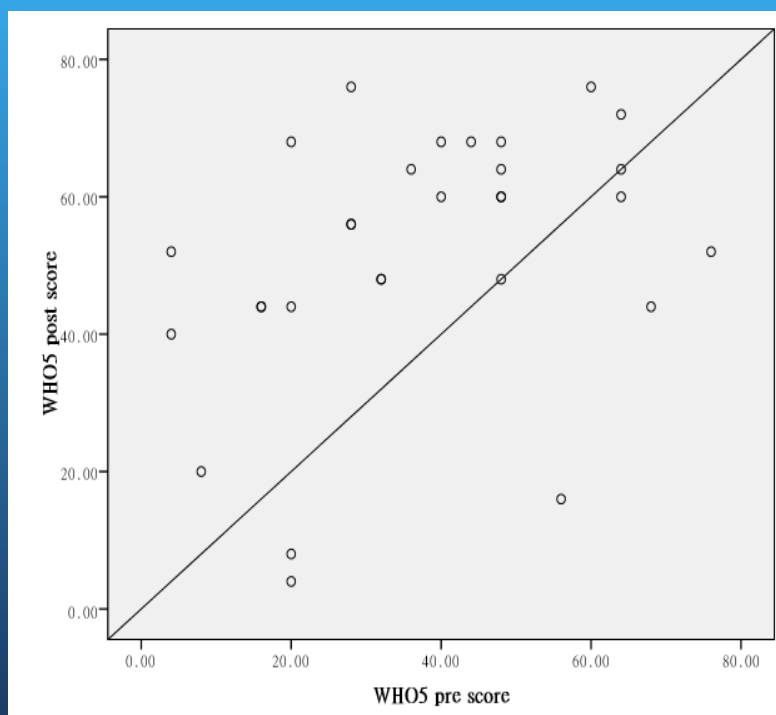


# Coach the Journey of Change

- What to do? Cycles of goal setting & implementation
  - Weekly goal setting
  - Goals: progress from leisure → social → work
  - Detail activity analysis and synthesis → ensure successes
  - Group dynamic to energizes actions
- Two outing sessions: plan, analysis, design, implementation

## WHO-5

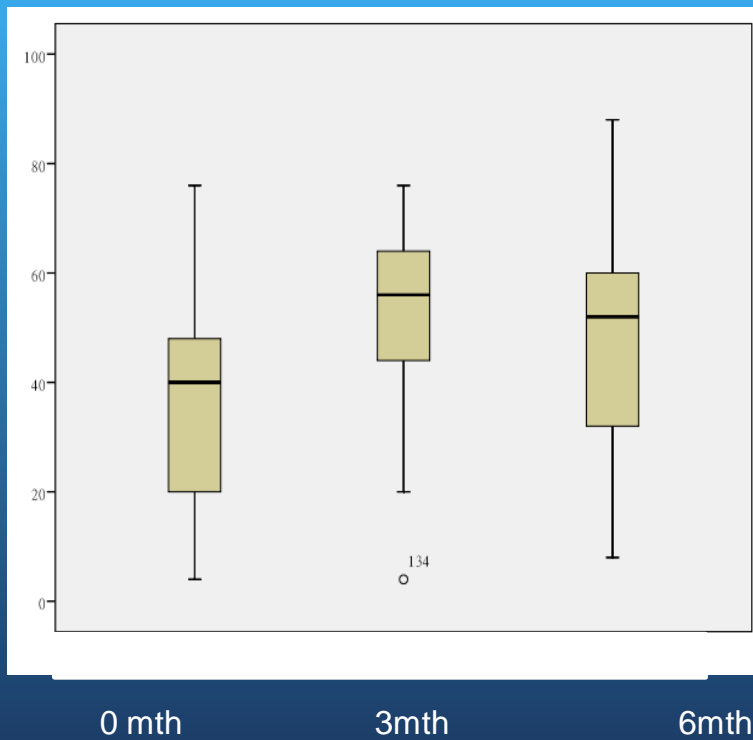
Physical and Psychological wellbeing scale



N = 30  
Pre = 37.6/100  
Post = 51.7/100  
T-statistic = 3.58  
P-value = 0.001\*\*

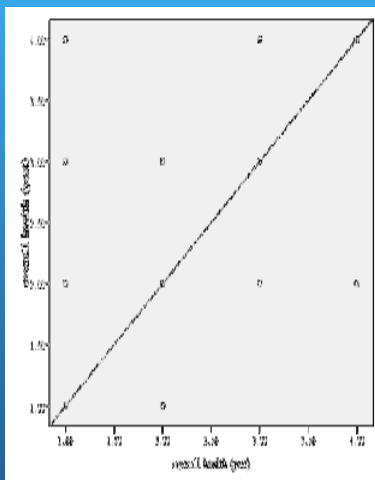
# WHO-5

## Physical and Psychological wellbeing scale



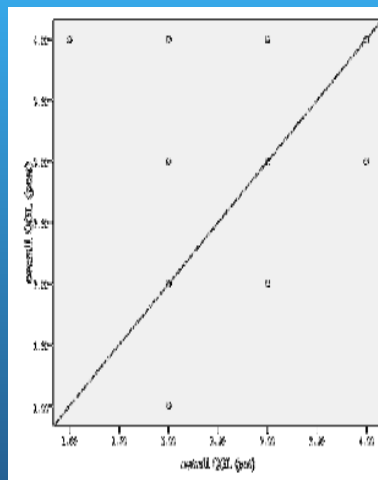
# Single Questions

## Overall Health



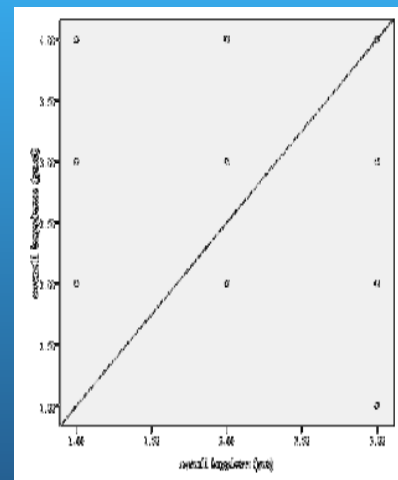
Overall Health  
N = 28  
Pre = 2.25/5  
Post = 2.71/5  
t-statistic = 2.458  
**p = 0.025\***

## QOL



Overall QOL  
N = 28  
Pre = 2.79/5  
Post = 3.18/5  
t-statistic = 2.017  
p = 0.054

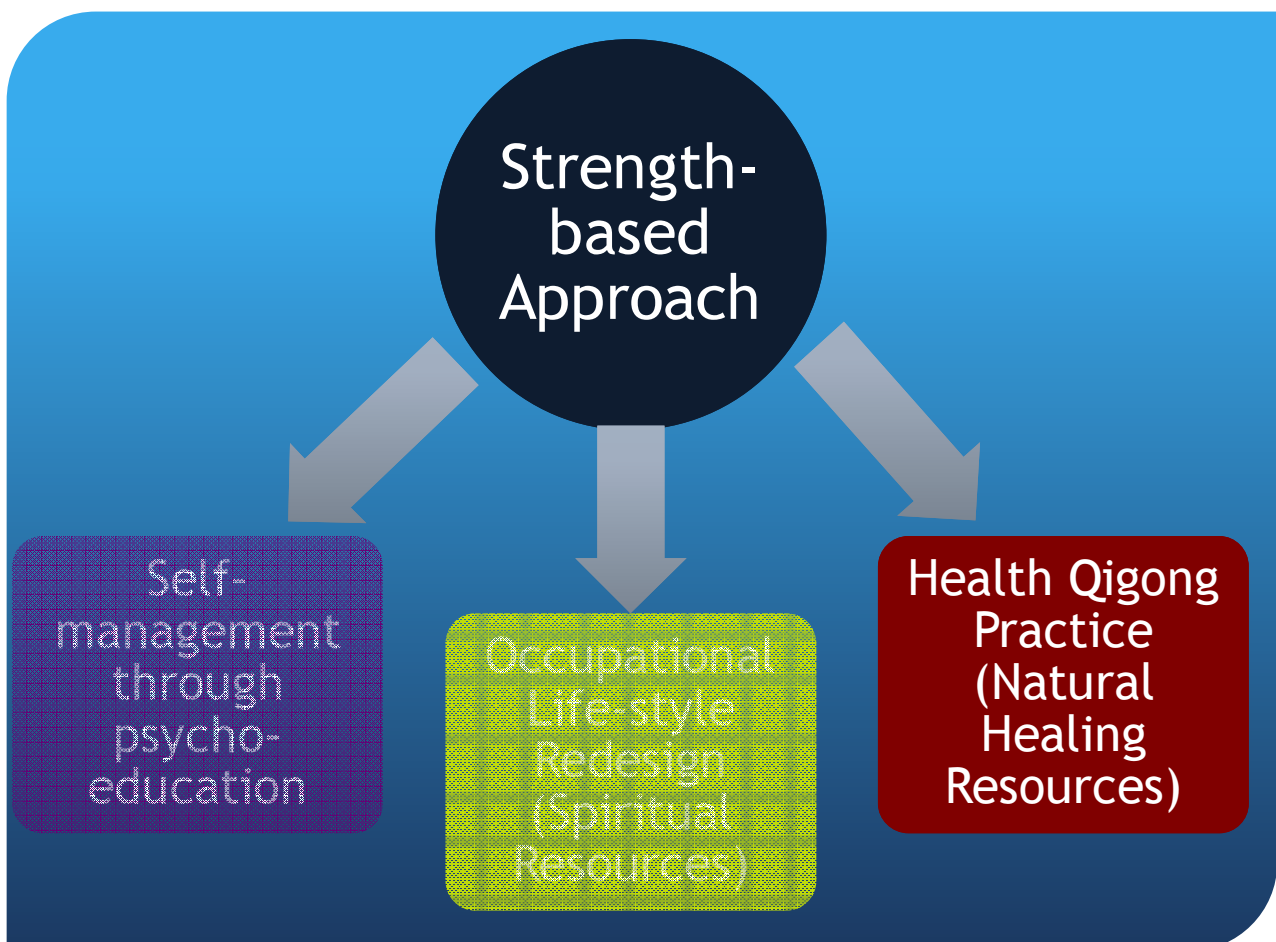
## Happy Living



Overall Happiness  
N = 28  
Pre = 2.54/5  
Post = 3.04/5  
t-statistic = 2.469  
**p = 0.020\***

## Qualitative feedback from participants

- There are a lot of desirable changes in the person
  - Motivational, psycho-social, habits and lifestyle
- Successful achievement in goals of pursuing happiness inducing activities will result in:
  - Regular mood
  - Improve self efficacy
  - Methods and strategies learned to meet challenges
- All these further energize attempts of more difficult goals



## Strength-based Approach: Health Qigong, natural healing resources

- What is Health Qigong?
- “Qi” (氣)
  - vital energy or dynamic force, which sustains and nourishes life
- “Gong” (功)
  - skill or art acquired through **REGULAR PRACTICE**

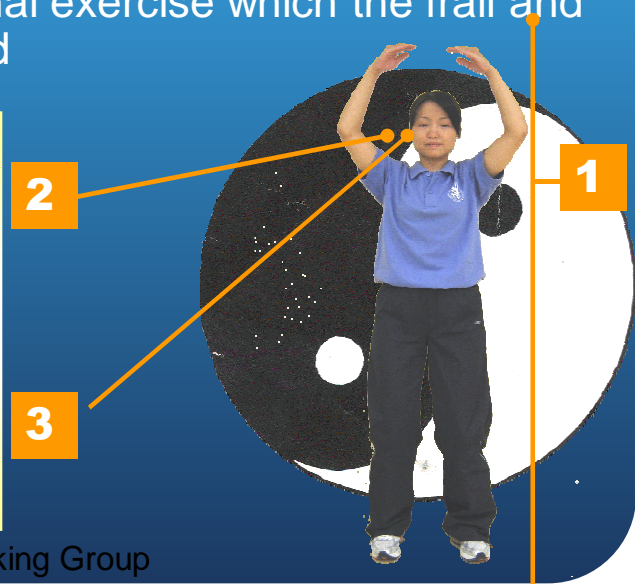
## Health Qigong is...

- An Ancient Exercise for the “Mind” & “Body” applied in modern rehabilitation
- An alternative to conventional exercise
- An activity which can be fitted nicely into other rehabilitation programs, e.g. OSLR

# Health Qigong ...

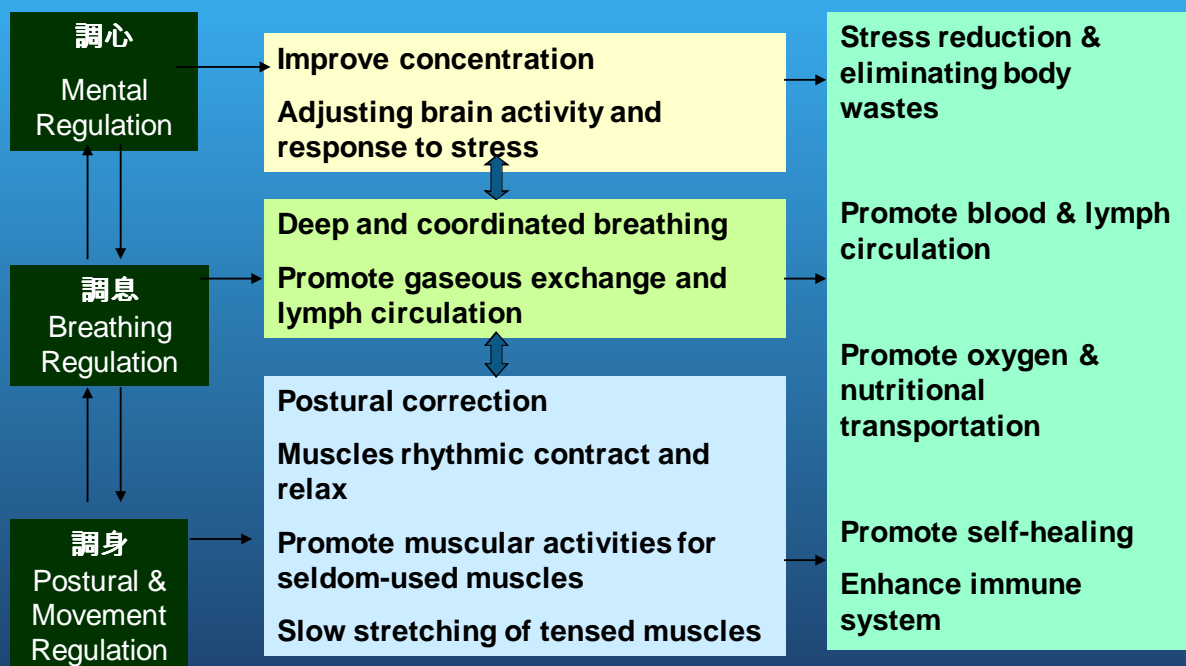
- A cultural sport activity for exercising “the Mind & the Body.” Can be applied & fitted into modern rehabilitation & health promotion programs, e.g OLSR
- An alternative to conventional exercise which the frail and weak can easily participated

1. **Postural & Movement regulation**
2. **Breathing regulation**
3. **Mental regulation**
4. **INTEGRATION for a state of BALANCE / HOMEOSTASIS**



Reference: HKOTA Health Qigong Working Group

## Benefits of Health Qigong: Integration of the “three regulations” (三調合一)



Reference: HKOTA Health Qigong Working Group

# Application of health qigong in different disease groups

**明報 2004**

2004-02-16 港聞 A6

患病老人練氣功身心更健康

患高血壓近20年 氣功半年病癒消

【本報訊】一名患有高血壓近二十年的老人，經過半年練習氣功後，高血壓完全痊癒。這名老人表示，氣功不僅能改善他的身體健康，還能減輕他的心理壓力，使他感到更加輕鬆和快樂。

**東方日報 2008**

【本報訊】習氣功有助強身健體，聯合醫院研究發現，氣功之一的「八段錦」可為冠心病病人手術後康復。冠心病復發病人每日定期練習八段錦，脈搏及血壓均下降。兩年內無人入院紀錄；無習八段錦房一組復康者，一成冠心病病人不需再次入院。該院職業治療師稱，冠心病與精神壓力有密切關係，習八段錦有放鬆作用，可緩解可預防心臟病。但提醒病人若有心臟病，或練習時心神紊亂應立刻停止練習，否則有反效果。

聯合醫院○六至○八年期間，進行八段錦復康療效臨床研究，共五十七名冠心病病人參加，其中三十一人習八段錦十二星期（氣功組），餘下是對照組。結果顯示，氣功組病人脈搏平均下降百分之五點三，對照組病人的脈搏平均上升百分之六點四；氣功組病人的血壓下降百分之二點九，對照組則上升百分之二。脈搏及血壓上升對心臟造成負荷，研究結果反映八段錦有助減輕心臟負擔。

聯合醫院職業治療師鄧理思表示，大部分冠心病病人對快慢不定的練習，手後便感到疲勞，影響康復過程，如因壓力令脈搏及血壓上升。

一週練五次 每次50分鐘

八段錦以圓身、靜息及調心為主，復康者可透過有節奏的呼吸，令自己專注放鬆，調整負面情緒。他建議理想的練習，一週不少於五次，每次五十分鐘，包括休息兩分鐘。

聯合醫院一級職業治療師羅儀稱，氣功有多種，其中八段錦、易筋經、五禽戲、六字訣等均獲內地證實，引入作為不同病種的康復工具。如易筋經可應用在耳聾、六指放應而在心臟復康。八段錦則擴展至慢性疼痛、中度中風病人及精神病人。聯合醫院只安排該院合適病人習八段錦。

**太陽報 2005**

毋須常服藥 長者易練習

氣功降血壓 不輸蝕傳統運動

【本報訊】氣功降血壓，長者易練習，毋須常服藥。一項由香港中文大學醫學院及香港中文大學中醫藥學院聯合進行的研究顯示，氣功降血壓的療效不輸蝕傳統運動。研究發現，練習氣功八週後，受試者的血壓顯著降低，且副作用較少。這對於患有高血壓的長者來說，氣功提供了一種安全有效的替代方案。

**東方日報 2006**

北京師傅來港 醫院授徒

氣功復康 久病自療

【本報訊】北京師傅來港，醫院授徒，氣功復康，久病自療。一名北京師傅來港，在醫院授徒，教授氣功復康。該師傅表示，氣功復康對於許多慢性病患者具有顯著療效，特別是對於高血壓、糖尿病和心臟病患者。他強調，氣功復康不僅能改善身體健康，還能增強病人的自我療愈能力。

**南華早報 2008**

Qigong classes helping heart patients physically and mentally

【本報訊】氣功課程正在幫助心臟病患者在身體和精神上都得到康復。一項由香港中文大學進行的研究顯示，氣功課程對於心臟病患者具有顯著的療效。研究發現，練習氣功八週後，受試者的血壓、心率和焦慮水平均顯著降低。這表明氣功不僅能改善心臟健康，還能減輕病人的心理負擔。

**太陽報 2008**

八段錦舒老人寢呆抑鬱症

【本報訊】八段錦舒老人寢呆抑鬱症。一項由香港中文大學進行的研究顯示，八段錦對於改善老年人的睡眠和抑鬱症具有顯著療效。研究發現，練習八段錦八週後，受試者的睡眠質量顯著提高，抑鬱症狀也明顯減輕。這表明八段錦不僅能改善身體健康，還能改善老年人的心理狀態。

**太陽報 2008**

八段錦助冠心病者康復

【本報訊】八段錦助冠心病者康復。一項由香港中文大學進行的研究顯示，八段錦對於冠心病病人的康復具有顯著療效。研究發現，練習八段錦八週後，受試者的血壓、心率和胸痛症狀均顯著改善。這表明八段錦不僅能改善心臟健康，還能減輕病人的痛苦。

## The Four Health Qigong Styles regulated by General Administration of Sports of China (國家體育總局):



易筋經



六字訣



五禽戲



八段錦

\*Local OTs have received formal training and certified as coaches in these four styles



## Why using health qigong for pain patients?

1. Forms are simple and easy to learn
2. Allow adaptations and gradual upgrading – important for gaining self-efficacy
3. Emphasized in spinal movement - stretching of back and trunk muscles (esp. for 八段錦/易筋經)
4. Affordable, feasible for indoor practice - favors compliance
5. Facilitate life-style changes by engaging patients in a more active life-style

## Recent studies of Health Qigong

- Neck pain reduced by health qigong practice for twelve months, twice per week, each session for one hour. (Lansinger B, Larsson E, Persson LC, Carlsson JY (2007). Qigong and Exercise therapy in patients with long term neck pain: a prospective randomized trial. *Spine* 32(22): 2415-22)
- Pain reduced and improved insomnia and functional disability by health qigong practice for twice a day for two months. (“習練易筋經治療腰肌勞損臨床觀察”趙立軍 (2007) 北京中醫 2007年10月第10期)



# Health Qigong for Chronic Pain – in the News

**八段錦治痛症 改善病人活動能力添自信**

痛症病人傳統上會採取力量型的訓練，來進行職業治療，但他們往往與權訓練帶來的疼痛、效果未為理想，他們亦有時會因而患上抑鬱，影響身心健康。為了協助這類病人，基督聯合醫院兩年內引入八段錦的健身氣功，為40多個個案進行痛症的職業治療，令病人活動能力和自信心，都有良好的改進。

2004年《香港醫學期刊》指出，七成痛症病人有抑鬱和焦慮問題，高症除在生理上折磨病人，亦影響他們的情緒，以致影響生活和工作。

傳統的功能訓練不能同時處理患者承受的心理壓力。

**七成痛症病人抑鬱焦慮**

對此，聯合醫院2007年成立慢性痛症小組，將健身氣功八段錦，應用於慢性痛症病人的治療，兩年內為病人進行痛症的職業治療，發現患者的活動能力和自信心都有所改進，效果顯著。

廣症病人學習八段錦要上8堂課，其中7堂每

恢復至受傷前的四成，而且活動的信心更恢復至八、三年前，幼兒園教師李歡在課堂中，被一小時講課拉開她身後的視，她一不留心又重再坐下時卻要懊。

醫生診治她尾有一截腰骨移位，她連疼痛不已，只是吃止痛藥，李歡說：「有可到總走路十多分鐘都持不到，感到很難受，甚至試過要上骨科醫生。」她發覺多事情都無法應付，便辭去做了18年的工作。

**信心恢復八成**

其後將骨科醫生介至聯合醫院，嘗試練

**「八段錦」助紓緩慢性痛症**

有調查指，本港約有一成人患有不同類型的慢性痛症，更有研究指當中超過七成患者出現焦慮或抑鬱。聯合醫院引入健身氣功「八段錦」，協助慢性痛症患者紓緩不適，改善身體機能及情緒問題。

四十九歲的李寬，原為幼稚園老師，三年半前因被學生拉走椅子而不慎跌到，傷及腰骨，令尾椎骨歪曲。

會花幾個月，直到最近，才感到活動自如。

**健身氣功助療傷拾自信**

八段錦課程 改善痛症患者身心

意外跌傷、工傷或慢性痛症造成的身體創傷，經過治療可以獲得痊癒，但仍會為患者帶來持續及間歇性的痛楚，影響日常生活。有醫學研究指，七成慢性痛症患者出現焦慮或抑鬱，聯合醫院自七七年開始，運用健身氣功輔助治療，透過八段錦「三調合一」的療法，協助患者恢復日常活動能力，重拾自信。

四十九歲的幼稚園老師李寬，三年前因被學生拉走椅子而不慎跌到，傷及腰骨，令尾椎骨歪曲。經過治療，她仍會感到持續及間歇性的痛楚，影響日常生活。有醫學研究指，七成慢性痛症患者出現焦慮或抑鬱，聯合醫院自七七年開始，運用健身氣功輔助治療，透過八段錦「三調合一」的療法，協助患者恢復日常活動能力，重拾自信。

聯合醫院職業治療部經理溫成顯接受訪問時指出，八段錦治療痛症的原理，是調整中醫理論的經絡運行系統，病人在做八段錦的招式時，一動一靜可刺激全身穴位，從而疏通經絡，令氣血運行而減少痛楚。八段錦的練習要訣是「三調合一」，包括調身、調息、調心。調身，調整病人的姿態和精神狀態；調息，調整呼吸節奏；八段錦在職業治療中，可令病人的身心互動影響。而且重要的是教病人重整生活習慣和自我管理的方法，病人就可以恢復信心，並自行進行一些日常的活動。

李寬說：「有可到總走路十多分鐘都持不到，感到很難受，甚至試過要上骨科醫生。」她發覺多事情都無法應付，便辭去做了18年的工作。

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## Evidence-based HQG in Chronic Pain Management

- Objective:
  - Effectiveness of regular practice Health Qigong Yi Jin Jing (HQGYJJ) in improving pain and related symptoms
- Subjects:
  - 39 middle-age females, all community dwellers, with chronic LBP
- Methodology:
  - Study group: 8 weeks' HQGYJJ training program was applied
  - Control group: No Rx

Siu, YYP, Qin L. *Regular Health Qigong Yi Jin Jing is effective in female community dwellers with chronic non-specific low back pain: A randomized controlled trial.*

Parameters for measurement:

1. Pain intensity:  
Numerical rating scales 11 (NRS11) (Downie, 1978)
2. Hamstring and low back flexibility:  
Classical sit-and-reach test (Jackson, 1982)
3. Depression in chronic pain patients:  
The Chinese Beck Depression Inventory-II (CBDI-II) (Leung, 2001)
4. Functional capacity and disability of chronic low back pain:  
The Chinese version of the Oswestry Disability Index (CODI) (Chow and Chan, 2005)  
6-minutes walk test (Steele, 1996)

Median (range)	Control group N=19			HQGYJJ group N=20 (2 LOCF)		
	Pre-test	Post-test	P value	Pre-test	Post-test	P value
Most painful intensity in this week	6.0 (5.0)	5.0 (8.0)	0.048*	6.0 (6.0)	4.5 (6.0)	0.002*
Least painful intensity in this week	2.0 (5.0)	2.0 (5.0)	0.363	3.0 (6.0)	1.5(4.0)	0.023*
Classical Sit-and-reach test	24.5 (40.0)	26.0 (31.5)	0.111	21.8 (37.0)	27.0 (38.0)	0.001*
6-minute walk test	489.0 (268.0)	485.0 (342.5)	0.673	544.0 (464.0)	556.0 (274.0)	0.207
CODI	26.7 (36.0)	17.8 (40.0)	0.006*	22.2 (40.0)	22.2 (40.4)	0.089
BDI	11.0 (15.0)	10.0 (17.0)	0.304	16.5 (39.0)	13.67(42.0)	0.008*#

Wilcoxon signed Ranks test ; #sign test  
\*At 5% level of significance

## Evidence-based HQG in Chronic Pain Management

- Results:
  - 20 subjects in experimental group reported decreased in median pain and depressive features, significant increased in trunk flexibility
  - Comparing to control group, experimental group showed a significant improvement in functional capacity
- Conclusion:
  - Regular HGQYJJ practice is helpful in reducing pain and depressive features, improve trunk flexibility and functional capacity in middle-aged female community dwellers.

Siu, YYP, Qin L. *Regular Health Qigong Yi Jin Jing is effective in female community dwellers withy chronic non-specific low back pain: A randomized controlled trial.*

## Conclusion

- Viewing chronic pain as a symptom? Disease?
- Complexity of chronic pain calls for more holistic and innovative approaches
- Paradigm shift in OT management – problem-based approach to strength-based approach
- Build up resilience through development of patient's strength & resources
- Decrease health care utilization and overall cost

## New Formula!



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