



賽馬會樂齡同行計劃
Jockey Club
Holistic Support Project
for Elderly Mental Wellness

JC JoyAge International Symposium 2021

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Host Institution:



HKU
SWSA

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The University of Hong Kong
香港大學社會工作及社會行政學系

A photograph of a beach with waves crashing onto the shore in the background. The foreground is filled with sand and several footprints. The text is overlaid on the image.

Acceptance and Commitment Therapy (ACT) and Physical Exercise for Chronic Pain

**Development of a community-based pilot
program for older people in Hong Kong**

Imagine you have chronic back and knee pain that impact on your mobility and functioning, making you feel depressed ...



*How would you feel?
How would you want to live your life?*



Photo source: <https://unsplash.com/photos/ennWfNLM30E>

Chronic Pain and Depression

- Chronic pain: pain persisting > 3 months
 - 28.7% - 35% of general population of Hong Kong
 - 37.1% are > 60 years old (est. up to 900K)
- Depression is the most common comorbidity
 - chronic pain increases risk for depression **2.5 - 4.1 x**
 - depression increases risk for chronic pain **3 - 6x**
 - about **13%** of older adults has MDD and chronic pain
- Chronic pain and Depressed mood is associated with:
 - physical disability, poor psychosocial functioning
 - poor treatment outcome, decreased quality of life (QOL)

Chronic pain and depressed mood must be addressed for optimal functionality

HKU clinical team members



From left to right:

Ms Angie Shum
Clinical Psychologist

Ms. Annabelle Fong
Certified exercise physiologist

Ms Rachel Chan
Professional counsellor

Ms Wai Wai Kwok
Senior Clinical Psychologist

Clinicians from NGOs:

Social workers from District elderly community centres (DECCs)



Today's sharing

- The conceptual framework and protocol of the chronic pain program
- Cultural challenges and adaptation in applying Acceptance and Commitment Therapy (ACT) to older adults in Hong Kong
- Preliminary results and feedback from the pilot study



Non-pharmacological Interventions of chronic pain

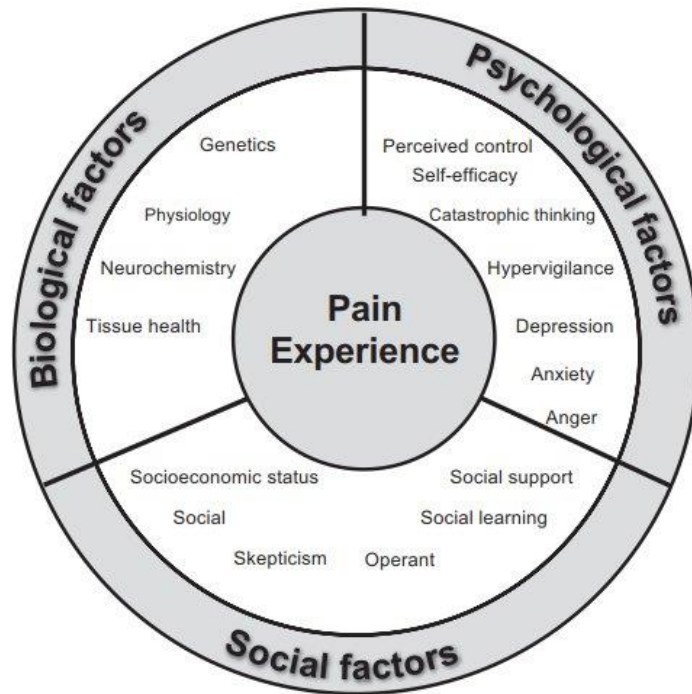


FIGURE 2 Biopsychosocial model of pain

- Interventions generally aim to:
 - Reduce pain intensity
 - Reduce pain interference
- When focus on reducing pain intensity becomes a problem:
 - Shift the focus to improving functionality and value living with chronic pain
- Current recommendations (NICE, 2020):
 - Supervised group exercise program
 - CBT or Acceptance and Commitment Therapy (ACT)

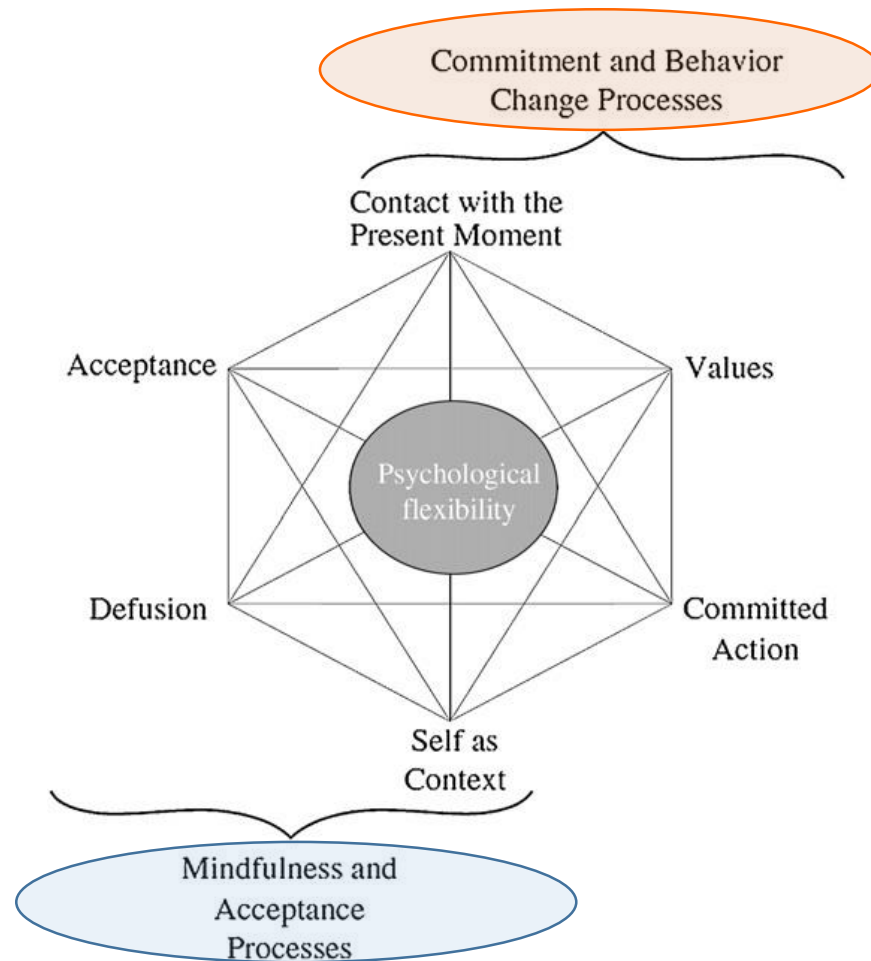
Adams, L.D.; Turk, D.C. Central sensitization and the biopsychosocial approach to understanding pain. *J. Appl. Behav. Res.* **2018**, *23*, e12125.

A small green seedling with several leaves is growing out of a crack in a dark, textured rock surface. The background of the slide is white with a large, curved, light-colored shape on the left side.

ACT for Older Adults

- What is ACT?
 - Mindfulness-based intervention
 - Promotes psychological flexibility through 6 ACT processes
 - Develops workable goals and strategies for valued living despite challenges
- Our Application of ACT
 - chronic pain and functional decline with aging
- Consistent with models of successful aging
 - Selective Optimization with Compensation Model (Baltes and Freund, 1990)

ACT Approach to Chronic Pain



- Psychological flexibility
 - capacity to work towards important life values despite pain
- Mindfulness & Acceptance:
 - willingness to experience pain without attempting to control or change it
- Commitment and Behaviour Change:
 - clarifying values and goals and committing to them with value consistent actions

Chronic Pain Interventions

ACT

Benefits

- Focuses on the life you want to live, instead of living life around chronic pain; reduce pain interference
- Improves motivation with value driven goals and action
- Increases acceptance of pain

Challenges

- Novel to older adults
- Not focused on pain reduction
- Stigma of mental health and illness
- Physical health limitations

Physical Exercise

Benefits

- Improves functioning through building muscle strength
- Release tension through stretching
- Good for physical and mental health

Challenges

- Experiential avoidance of pain, fatigue, and discomfort
- Beliefs as barriers e.g., “it won’t help”, “I am too weak”, “I will hurt myself”, “I better rest”



8 weeks ACT + Physical Exercise Pilot Program for Chronic Pain with emotional distress

Objectives:

- Reduce pain interference
- Reduce depressive symptoms
- improve engagement in meaningful life

Target Participants:

- Inclusion criteria:
 - age > 60
 - chronic pain
 - PHQ > 5
 - living in the community
- Exclusion criteria: not fit for exercise, other psychiatric disorders, acute pain, pain caused by cancer

ACT + Physical Exercise 8-week Program

ACT session (2-hr/wk)

- Check-in
 - Mindfulness
 - Review homework (committed action)
 - Song of the day
 - Main ACT activities (psychoed + experiential activities)
 - Homework Assignment
 - Mindfulness
-
- led by clinical psychologist, counsellor, or social worker

Exercise session (1-hr/wk)

- Check in
 - Mindfulness
 - Dynamic warm up
 - Resistance band exercise (2 sets)
 - Static stretching
 - Mindfulness
-
- led by certified exercise physiologist

ACT+ Exercise Program Development Process

Review ACT manuals to develop a protocol

Fung, K. P., Wong, J. P. H., & Li A. T. (2018), McCracken (2015) , Vowles, K. E & Sorrell, J. T. (2007)

Conducted 4 pilot groups (n=22)

participants recruited from District Elderly Community Centres

Protocol was modified after the groups

based on participant feedback, clinician observations, and consultation with ACT expert

Focus groups and questionnaires

evaluation of outcome and experiences

Participant Profile

Sociodemographics (n=22)	N (%) / mean (SD)	
Age (years)	71.5 (7.5)	
Female Gender	19 (86.4%)	
Education: Primary and below	12 (55%)	
Single/Divorced/Widowed/ Separated	10 (45.5%)	
Living alone	10 (45.5%)	
Frail/Pre-frail	20 (90%)	
Baseline (n=22)	mean (SD)	
Brief Pain Inventory – Average Pain Severity (0-10)	5.8 (2.0)	← moderate
Pain Interference (0-10)	5.31 (1.86)	← moderate
PHQ-9 (0-27)	10 (4.1)	← moderate

Shi, Q et., al (2017). Determination of mild, moderate, and severe pain interference in patients with cancer. *PAIN*, 158 (6), 1108-1112. doi: 10.1097/j.pain.0000000000000890.

Serlin, R. C., et., al. (1995). When is cancer pain mild, moderate or severe? Grading pain severity by its interference with function. *PAIN* 1995;61:277–84.

Kroenke, K., et. al. (2001). The PHQ-9: validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16(9): 606-613.

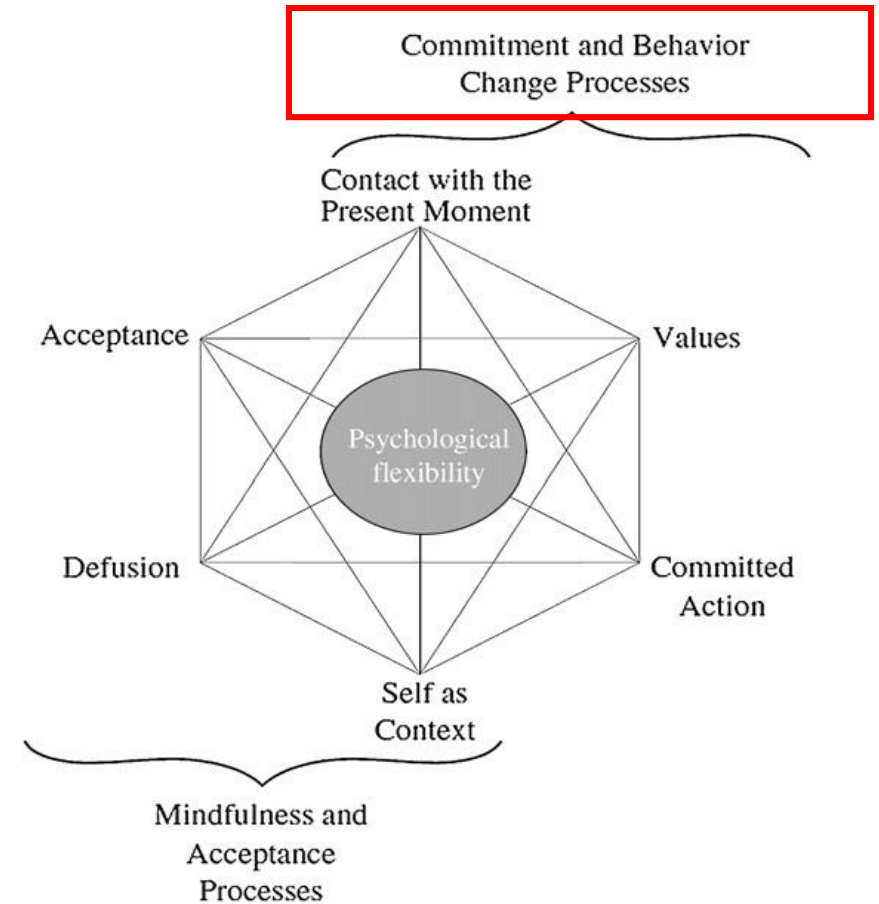
Cultural Considerations I: Dialogue & Discourse

- Migrated from Mainland China with different dialects
- Low education and literacy
- Unfamiliarity with abstract psychologized concepts e.g., thoughts and values, meaningful life



Adaptation I: Utilizing ACT Behavioural Change Processes

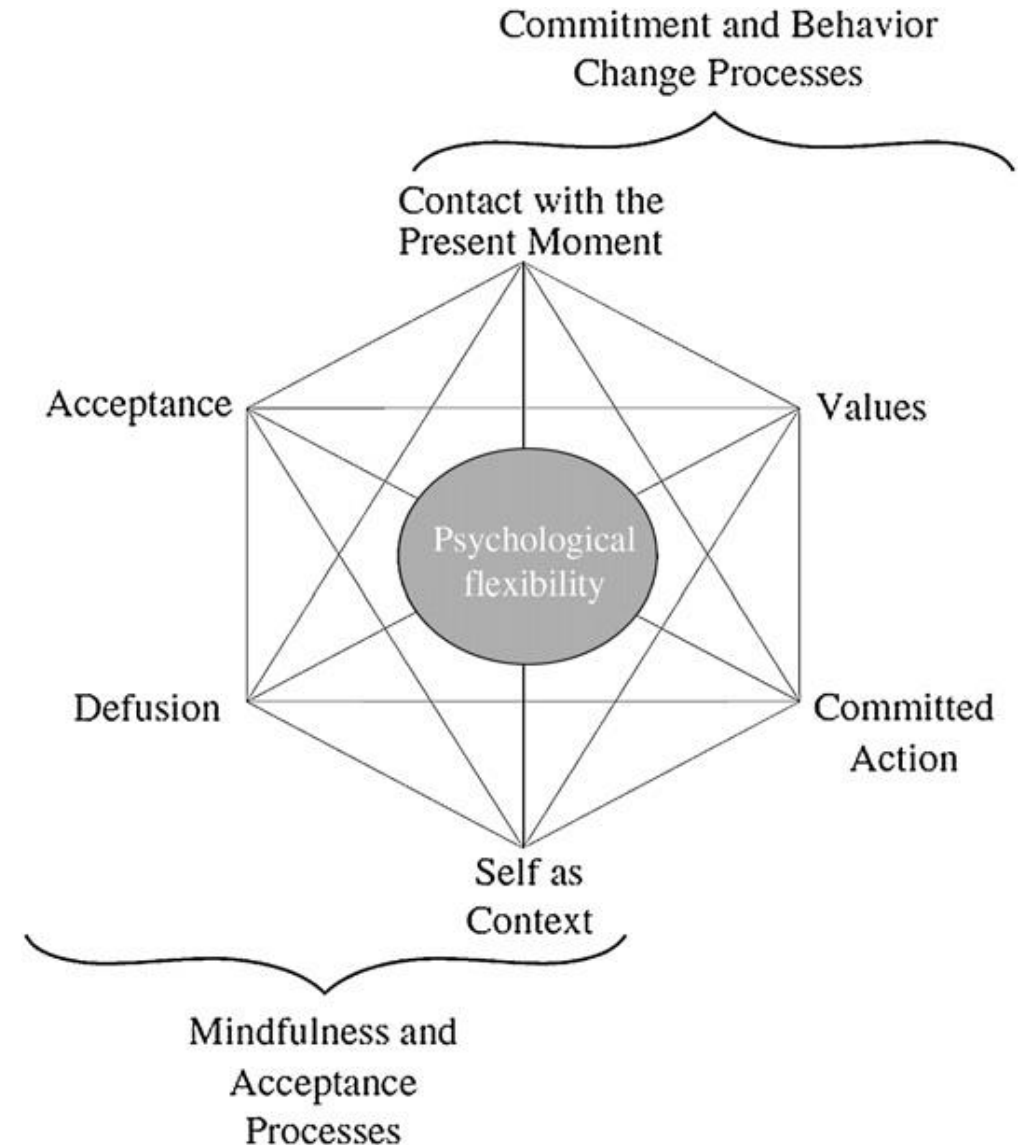
- Emphasize action-based intervention: “learning by doing”
- Value and committed action as core processes throughout the sessions
- Use here-and-now experiences in taking actions to explore other ACT processes



ACT Protocol

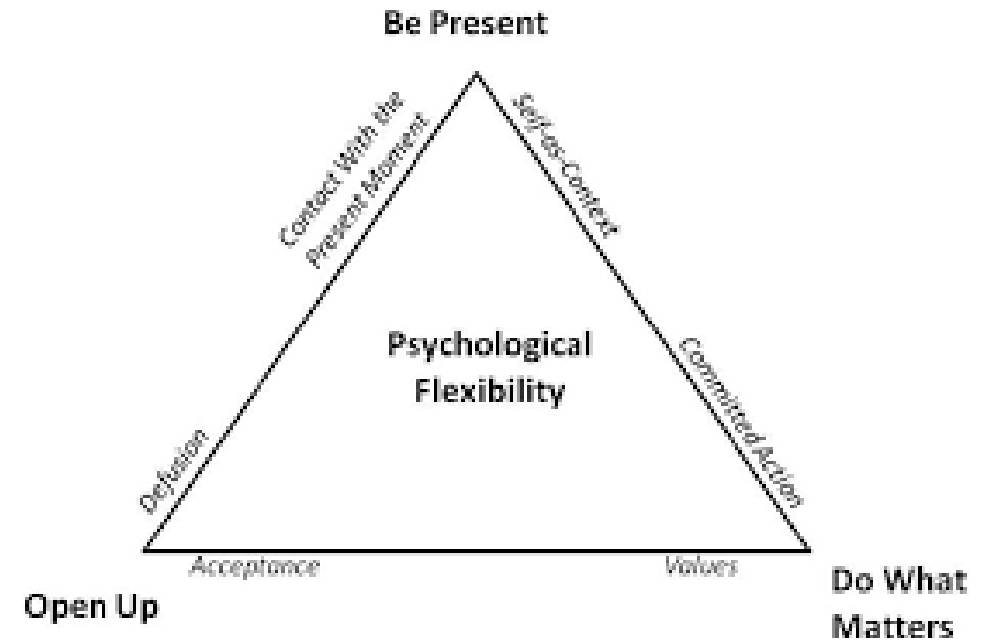
Core Themes:

- Session 1: Creative hopelessness
- Session 2: The present moment
- session 3&4: Values and committed action
- Session 5: Acceptance
- Session 6: Defusion and self-as-context
- Session 7: Integration of ACT processes
- Session 8: Summary and celebration



Adaptation I – simplify and repeat

- Simplify the ACT concepts into 3 core elements
- Repeat same elements in each session
- Physical exercise: same set of exercise with gradual increase in difficulties to build confidence and strength
- Use images, songs, stories, and experiential exercises to decrease reliance on language and terminology



Harris, R. (2015). www.actmindfully.com.au



Exercise Protocol

Warm up with dynamic stretches and mobility movements; Cool down with static stretches.

Each session consists of full body resistance band and stability exercises

- Session 1: 5 rep. X 2 sets
- Session 2: same as previous with increased resistance
- Session 3: 8 rep. X 2 sets
- Session 4: same as previous with increased resistance
- Session 5: 10 rep. X 2 sets
- Session 6: same as previous with increased resistance
- Session 7: same as previous with heavier resistance band; each participant can demonstrate one of the exercises in the second set.
- Session 8: Same as previous with intro to single-sided variations

Cultural Considerations II: Values & Acceptance

Concepts about values:

- Unfamiliarity with the abstract concept of “values” vs. pragmatic focus on goals and actions
- Collectivistic culture: social values and expectations prioritized over freely chosen personal values

Issues with acceptance (willingness):

- willingness to have pain/difficult feelings is a key to value consistent action
- willingness to self-sacrifice for a greater good is a common cultural value
- however, this may become fused with beliefs of “no choice”, “I have to”
→ i.e., rule following vs. acceptance



Adaptation II: Contextualized Values

- Easier to access contextualized values
- Cover 4 domains : from family → other areas
- Spend more time to explore personal values

“I realized that I forgot about the values and enjoyment I had ... when I have been busy looking after my family and coping with chronic pain”

“this is the first time I think about my values on self-care”



Use of value cards and coin metaphor

- Use of value cards – to facilitate the discussion on values
- Let go of self-limiting thoughts allow exploration on values
- Two-side of the same coin metaphor as a reminder of willingness

I am willing to experience the anxiety of letting my wife to go out, as this will make her feel happy, and it is my way of loving her



Cultural Considerations III: Stigma associated with Negative Emotions

- Distraction and avoidance of negative emotions are the cultural norm and can be helpful sometimes
- Expressing negative emotions in public is perceived as shameful and inappropriate
 - “I should be happy”, “sorry that I cried”, “I shouldn’t be feeling sad”
 - “the most important thing is being happy”
 - “don’t think and feel, just ignore it”
 - “it’s a personal weakness to feel sad”, “its shame to talk about this”
- The concept of “acceptance” may be understood as “I **must** accept”
- The “cost of avoidance”, “allowing”, and “willingness” may be too abstract

Adaptation III: Power of group dynamics and experiential exercise

Chair sculpture exercise*

- To explore the cost of avoidance, and build acceptance (allowing and willingness)



* Fung, K. P., & Zurowski, M (2016). Chair Sculpture of Suffering

Preliminary Quantitative Results

- reduce in average pain severity
- improved in functioning and physical fitness
- improved in depression
- improved in psychological flexibility and value living

N (%) / mean (SD)	Baseline (n = 22)	Post Intervention (n = 22)	P-value
Brief Pain Inventory (BPI)			
Pain Severity average	5.8 (2.0)	4.9 (1.7)	0.005*
Pain Interference	5.31 (1.86)	3.86 (2.24)	0.007*
Functional Fitness			
Balance – Full Tandem (s)	7.8 (3.5)	9.4 (1.5)	0.032*
Lower body strength – 30s chair stand (reps)	8.1 (4.5)	10.3 (3.8)	0.003*
Aerobic endurance – 2 min step test (steps)	70.8 (26.5)	83.1 (25.6)	0.013*
Dynamic balance and agility – Time up and Go (s)	14.2 (4.4)	11.8 (3.5)	0.000***
PHQ-9	10.0 (4.1)	6.3 (4.1)	0.000***
ACT processes			
		-	-
Chronic Pain Acceptance Questionnaire (CPAQ-8)	23.0 (6.5)	27.0 (7.9)	0.014*
Pain Self Efficacy Questionnaire (PSEQ)	33.5 (12.1)	42.5 (10.3)	0.028*
Chronic Pain Values Inventory (CPVI)	5.3 (5.1)	2.2 (4.7)	0.004*
- Values discrepancy			
Committed Action Questionnaire (CAQ-8)	26.1(5.6)	29.8(6.8)	0.034*

*** p<.001, *p<.05



Feedback from clients



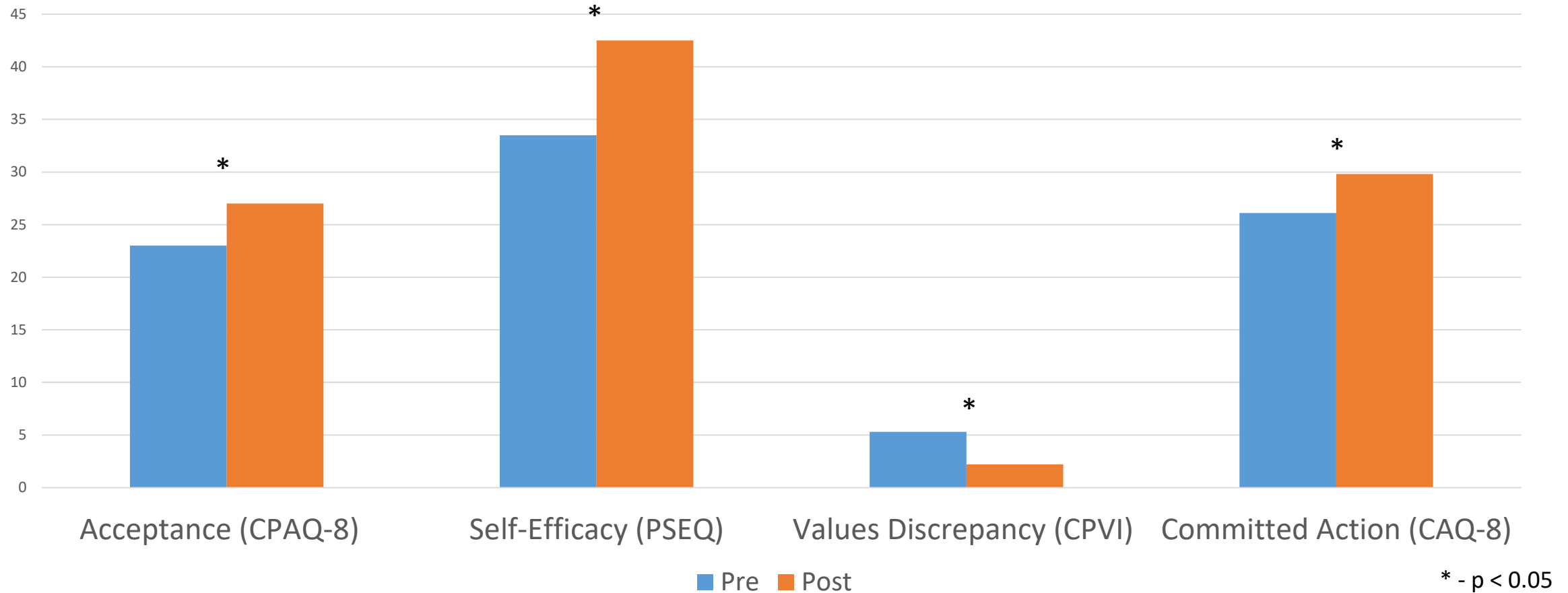
“the exercise is great, simple, and easy to remember, and helps to soothe the pain”



“My greatest gain is the realization that I can lead a normal life even with leg pain. I was inspired to cross more bridges (for the things I value in my life) in the coming years.”



ACT Processes in Chronic Pain



Challenges and way forward

Community setting

- Manpower: consider task shifting to trained fitness volunteers, social workers and potential peer-led ACT facilitators
- Difficult to recruit non-active members: Depression x chronic pain → idle at home
- Stigma related with mental health
- Practical assistant is need to overcome the external barriers
- More local and cultural adaptation may be needed

Evaluation

- Difficult to understand items from questionnaires



*Becoming more flexible in
facing life challenges!*



“I have pain and I've regained passion in my life”



Thank You

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