



# **A Pilot High-volume Low-cost Hospital-community Partnership Programme in the Management of Orthopaedic Patients With Chronic Pain Syndrome**



Cheung KK<sup>1</sup>  
Chan PH<sup>1</sup>  
Chow YY<sup>1</sup>  
Hung ATF<sup>2</sup>  
Ho JPS<sup>2</sup>  
Tse A<sup>1</sup>  
Chan I<sup>1</sup>  
Ip A<sup>1</sup>  
Wong C<sup>1</sup>  
Fung C<sup>1</sup>  
Kwok LC<sup>1</sup>  
NG CH<sup>1</sup>



屯門醫院  
Tuen Mun Hospital



香港復康會  
The Hong Kong Society  
for Rehabilitation  
**Anniversary**

社區復康網絡  
Community Rehabilitation Network

<sup>1</sup> Tuen Mun Hospital, Hong Kong Hospital Authority

<sup>2</sup> Tai Hing Centre, Community Rehabilitation Network,  
The Hong Kong Society for Rehabilitation, Hong Kong





# Introduction

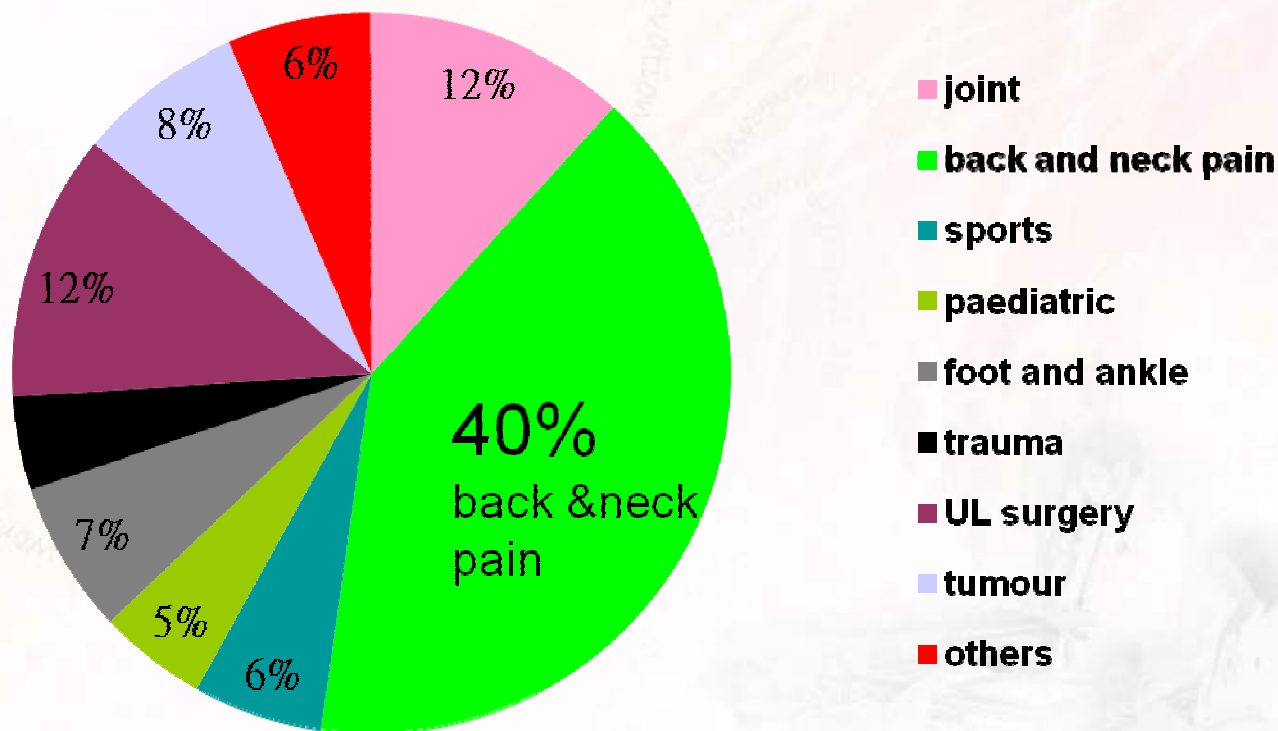




- Chronic pain syndrome, particularly back and neck pain, constitutes at least 40% of workload in the Orthopaedics Out-patient Clinic



# Diagnosis of 946 patients at first consultation in an Orthopaedic Out-patient Clinic

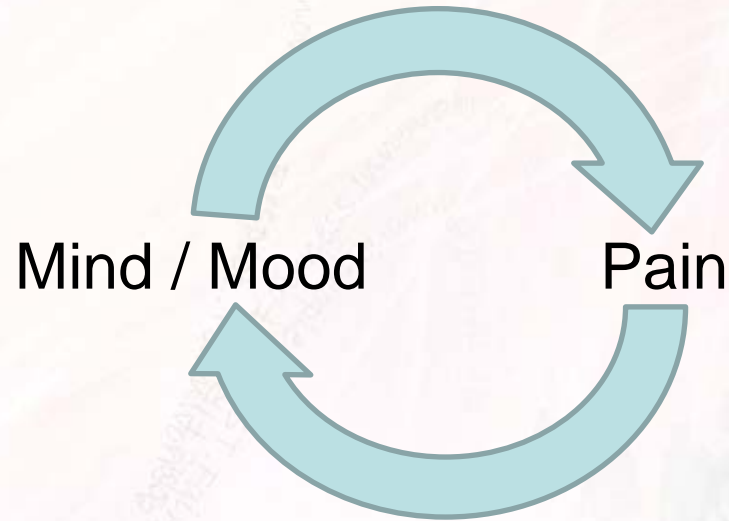




- Orthopaedic surgeons are specialized in doing surgery and are not trained to tackle chronic pain problems
- Analgesics and passive therapy modalities are ineffective



Underlying psycho-social issues may perpetuate the chronic pain syndrome

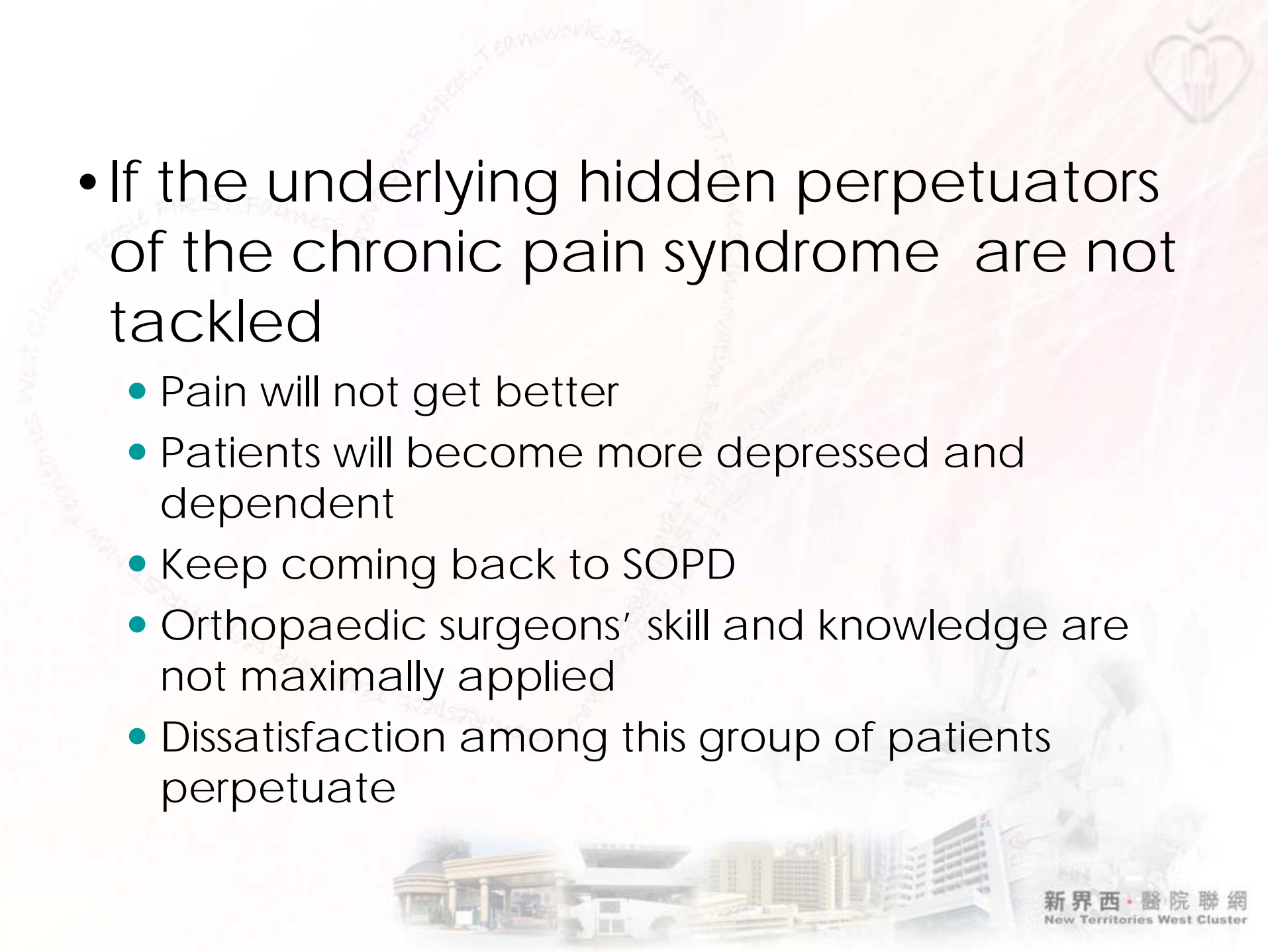


Stress

Financial burden

Family issue

Depression



- If the underlying hidden perpetrators of the chronic pain syndrome are not tackled

- Pain will not get better
- Patients will become more depressed and dependent
- Keep coming back to SOPD
- Orthopaedic surgeons' skill and knowledge are not maximally applied
- Dissatisfaction among this group of patients perpetuate





# 怨？

## A loss-loss situation!





**Need to let them know that  
function >> pain**





# Problems

- Passive and negative groups of patients
- Misconceptions
- Media
- Resources





# Methodology





# Self-realization, Self-control and Self-management

自覺、自主及自處





# 3S programme



# Mission

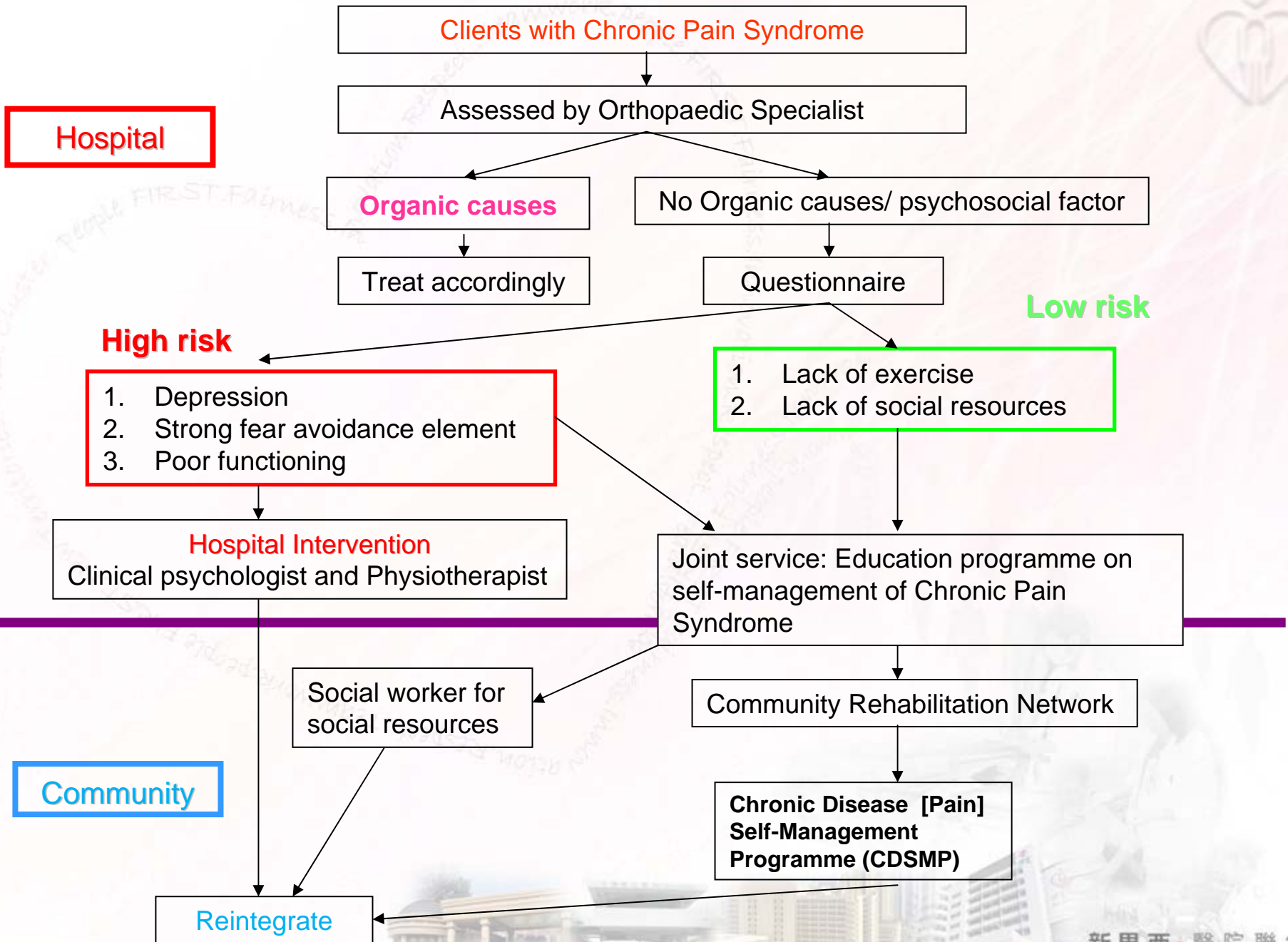
- To provide one stop service to clients that have musculoskeletal pain syndrome while there is no active significant organic pathology
- Introduce the concept of pain syndrome self management to clients by active participation
  - Cognitive therapy
  - Social activities
  - Exercise programmes

# Who are the stakeholders

- Orthopaedic Surgeon
- Orthopaedic nursing specialist
- Clinical psychologist
- Community Services Centre [CSC](social worker)
- Physiotherapist
- Community Rehabilitation Network [CRN](social worker)







屯門醫院及香港復康會社區復康網絡合辦

# 「痛症病人自主計劃」簡介會

- > 醫咗咁耐都喺繼續痛，係咪無得醫？
- > 點解我食咗咁耐止痛藥都仲係痛？
- > 做物理治療會唔會令我痛上加痛？
- > 除咗係醫院，社區裡仲有冇其他服務可以幫到我？

**若你都有以上疑問，以下活動能幫你找到答案！**

日期：2009年2月13日(星期五)

時間：下午2:30至4:00

地點：屯門醫院一樓社區服務中心活動室

對象：於屯門醫院骨科覆診病人  
(須由醫生轉介及會進行心身健康問卷評估)

講員：骨科護士、物理治療師、社工及  
社區復康單位同工

費用：全免

報名及查詢：屯門醫院社區服務中心  
2468 6167



# The actual workflow

Referral from SOPD



```
graph TD; A[Referral from SOPD] --> B[ ]; B --> C[ ]; C --> D[ ]; D --> E[ ]; E --> F[ ]
```



# Referral form to 3S programme



新界西·醫院聯網  
New Territories West Cluster

Serial No. ....

## Referral for Comprehensive Rehabilitation and Reintegration 3S Program

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**Patient's Gum Label**

**Medical Officer:** .....

**( Name in Block Letter )**

**Signature:** .....

**Date:** .....

~ 請到屯門醫院一樓特別座社區服務中心約期 ~

For an appointment: Please go to Community Services Centre, 1/F, Special Block, Tuen Mun Hospital

# The actual workflow

Referred from SOPD

Appointment booked in CSC

# Appointment book in CSC

- Client needs to take the initiative
- Phone contact as reminder ~ 1 week before the introductory class



# The actual workflow

Referred from SOPD

Appointment booked in CSC

Introductory class in CSC

# Introductory Class in CSC: passivity discouraged

- Orebro Musculoskeletal Pain Questionnaire (OMPQ) as screening tool for 'at risk' group
- Orthopaedic nurse specialist
  - Introduction to pain pathology
- Physiotherapist
  - Current concept in chronic pain syndrome self-management
- CSC
  - Introduction to various community resources
- CRN
  - Introduction of services to be provided
  - **Meet the successor and sharing**





# The actual workflow

Referred from SOPD

Appointment booked in CSC

Introductory class in CSC

Intermediate class in CRN



# Intermediate class in CRN: gesture of continuation of hospital care into the community

- Orthopaedic nursing specialist
  - Introduction to analgesic
- Physiotherapist
  - Recent concepts in management of chronic neck and back pain
  - Self care and exercise class afterwards in Tuen Mun Hospital (optional)
- CRN
  - Concepts in self-management of chronic pain
  - Chronic Disease Self Management Programme (CDSMP)



# The actual workflow

Referred from SOPD

Appointment booked in CSC

Introductory class in CSC

Intermediate class in CRN

**CDSMP in CRN**



身心力行課程  
**Chronic Disease Self  
Management Programme  
(CDSMP)**



# CDSMP

- Objectives:
  - Adopt systematic problem-solving process
  - Manage pain & emotions
  - Master self-management behavior
- a standardized group program delivered in **six 2.5 hours** weekly workshop



# CDSMP

- All professional or lay leaders completed the “Train-the-Trainers” program and practicum
- Objectives & contents fully described in the Leader’s Manual.
- Key topics:
  - Action planning, Problem-solving & symptom cycle
  - “Tool-Box” concept
  - Self-management behaviors



# The actual workflow

Referred from SOPD

Appointment booked in CSC

Introductory class in CSC

Intermediate class in CRN

CDSMP in CRN

Reintegration

# Evaluation

- Client satisfactory questionnaire
- OMPQ score before and after CDSMP
  - Pain
  - Depressive mood
  - Fear avoidance
  - Function
- SOPD attendance before and after completion of programme
- Pain medication prescription







# Results

Feb to Dec 2009





- 8 sessions
  - 220 clients made appointment
    - 144 attended
    - 76 defaulted

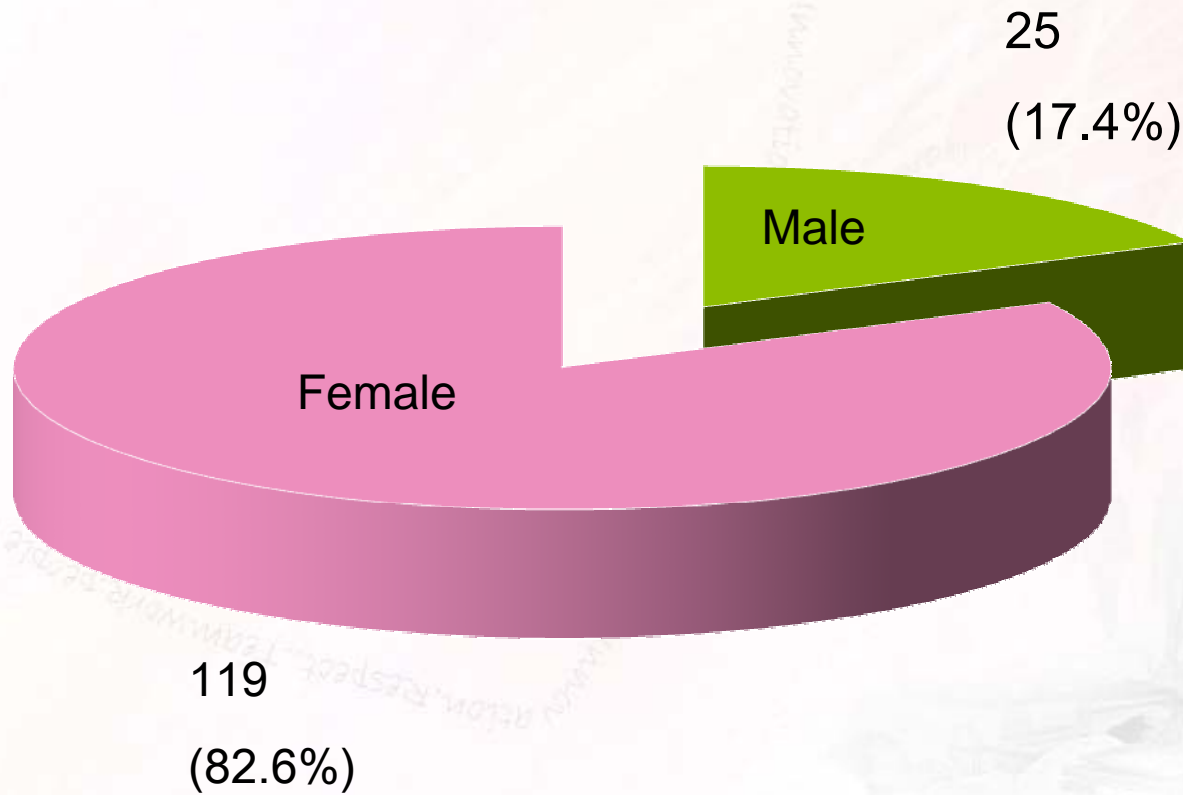


# Age (n=144)

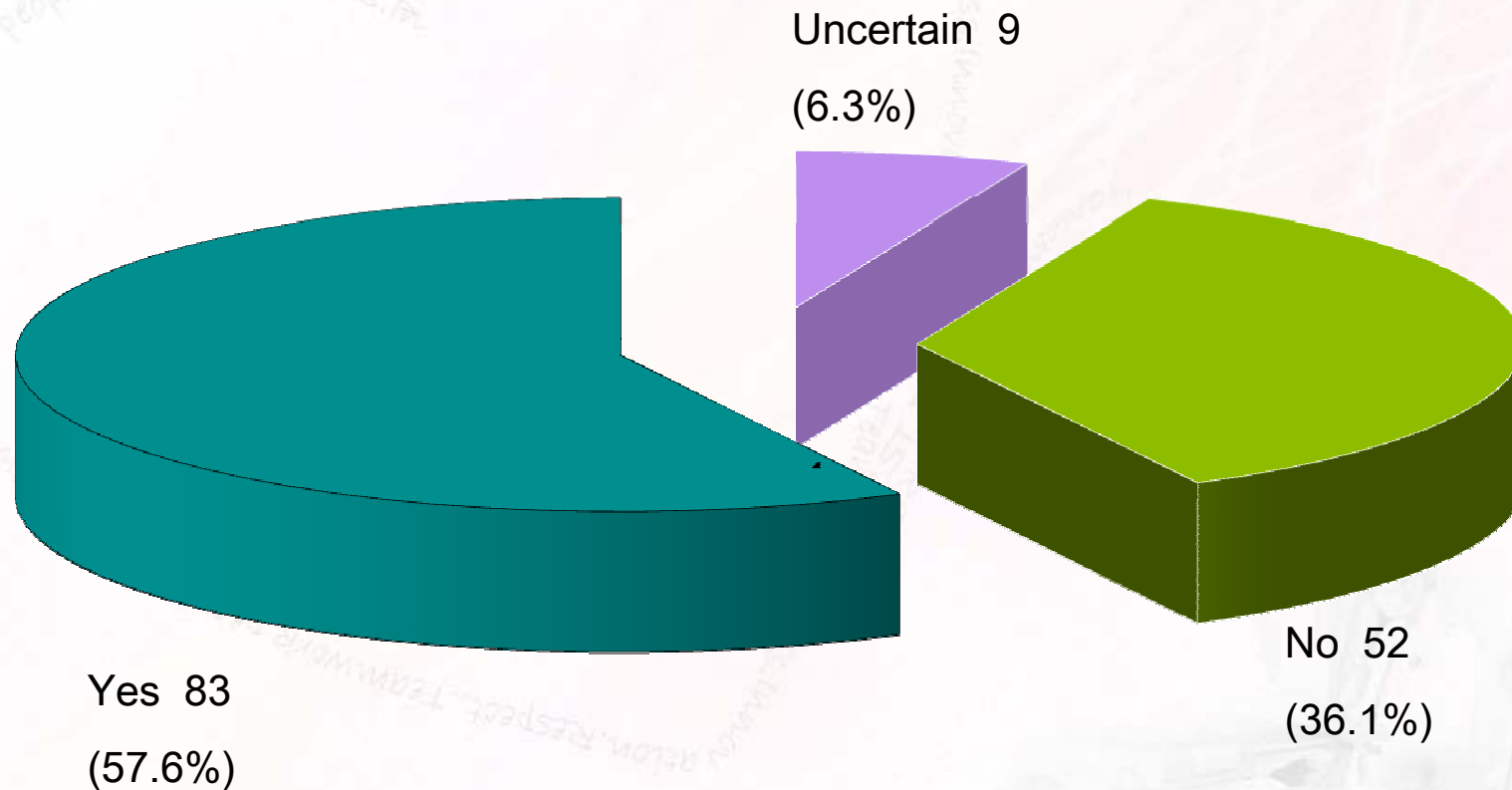
- Range: 22 – 82
- Average: **50.8**
- Median: **51**
- Mode: 52



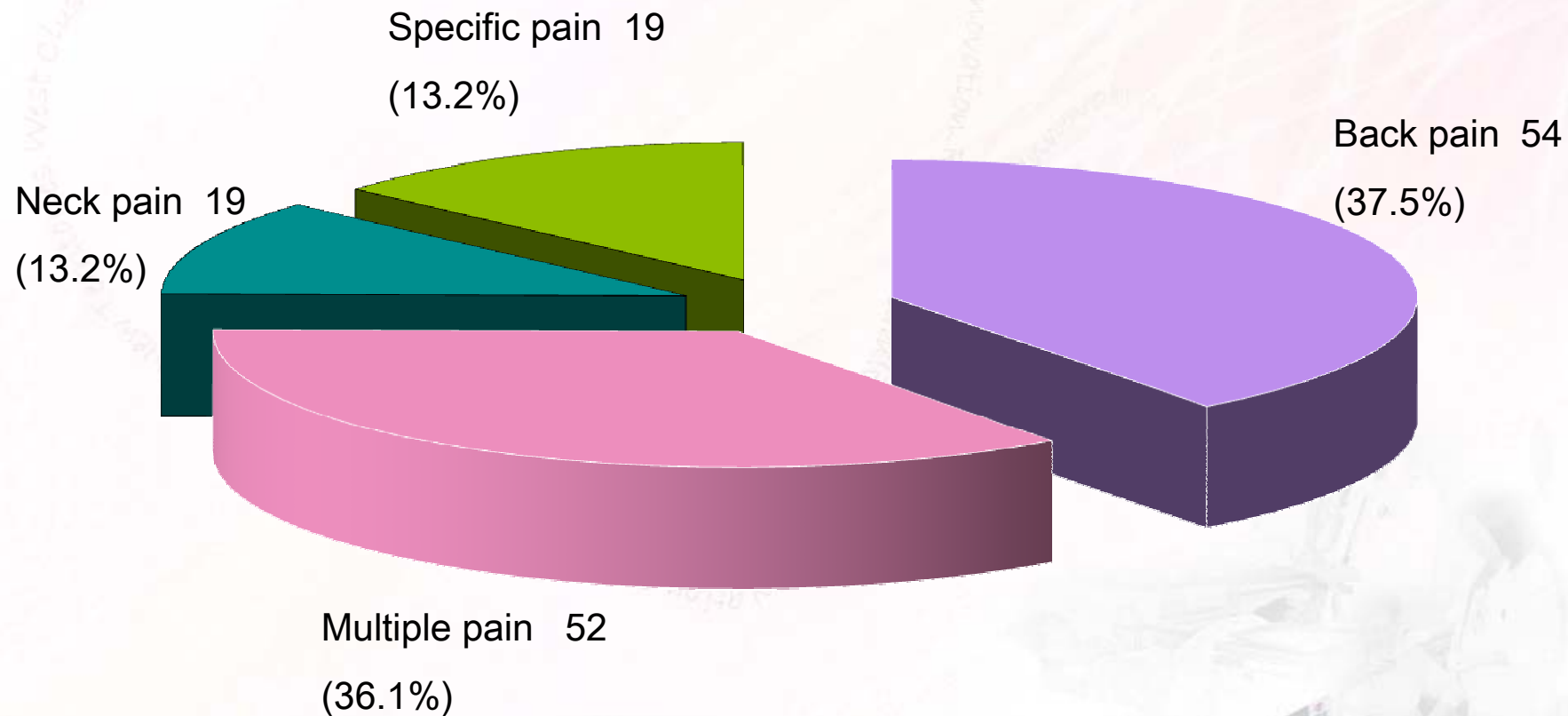
# Sex (n=144)



# Gainful employment (n=144)



# Chief complaint (n=144)



# Psychosocial issue identified in SOPD (n=144)



# OMPO screening: High risk clients

18 altogether  
12.5% of all screened





# CLIENT SATISFACTORY QUESTIONNAIRE AFTER INTRODUCTORY CLASS



in one weekday  
afternoon within the  
hospital premise



- 8 sessions
- 144 attendees
- 129 questionnaires returned
  - 89.6% return rate



# 你認為簡介會的內容對你有幫助嗎？

## Do You Think The Contents Of The Class Is Useful?



	十分有幫助 Very useful	有幫助 useful	普通 neutral	沒有幫助 Not useful	非常沒有幫 useless
痛症之病理知識 Pain pathology	16 (12.4%)	87 (67.4%)	26 (20.2%)	0	0
長期(慢性)痛症的現代 醫療概念 Concept in pain self-management	9 (6.9%)	82 (63.6%)	32 (24.8%)	2 (1.6%)	0
社區資源／熱線服務介 紹 Introduction to community resources	14 (10.8%)	86 (66.7%)	24 (18.6%)	0	0
復康單位服務介紹 (社區復康網絡) Introduction to community rehabilitation (CRN)	16 (12.4%)	83 (64.3%)	22 (17.1%)	3 (2.3%)	0

# CLIENT SATISFACTORY QUESTIONNAIRE AFTER INTERMEDIATE CLASS



Held in one weekday afternoon  
2 weeks after the introductory  
class in CRN premise



- 8 sessions
- 100 attendees (69.4% of 144 to the first class)
- 105 questionnaires returned\*

5 were carers and friends of the patients, and some are those referred before Feb. 2008



# 你認為簡介會的內容對你有幫助嗎?

## Do You Think The Contents Of The Class Is Useful?



	十分有幫助 Very useful	有幫助 useful	普通 neutral	沒有幫助 Not useful	非常沒有幫助 useless
常用止痛藥物的知識 Analgesic introduction	10 (10%)	59 (61%)	27 (28%)	1 (1%)	0
頸部及腰部護理 錦囊 Tips and skill in neck and back care	13 (14 %)	56 (60%)	23 (25%)	1 (1%)	0
痛症自我管理概念 Concepts in self-management of chronic pain	14 (14%)	61 (63%)	21 (22%)	1 (1%)	0

# 身心力行課程

## Chronic Disease Self Management Programme (CDSMP)



- No. of Group: 5

- **No. of participants completed the whole programme: 28**

- Total no. of sessions: 35
- Total no. of Attendance: 181
- No. of attendance per participant: 6.46

- **Percentage of clients completed the whole programme: 19.4% (28 / 144)**





# Pre-Post Orebro Questionnaire and Socioeconomic stress measurement Comparison:



- N=20
- Significant improvement
  - Total Score
  - Pain Intensity
- Improvement
  - Socio-economic stress
  - Depressed Mood
  - Fear Avoidance approach
  - Functioning



# Pre-Post Orebro Questionnaire and Socioeconomic stress measurement Comparison:



	Before	After	Difference	Significance (sample t-test)
Total score	109.65	92.8	16.85	0.001
Pain intensity	57.45	43.35	14.1	0.016
Depressed mood	5.75	4.65	1.1	0.071
Fear avoidance approach	6.53	5.767	0.7667	0.140
Functioning	3.47	2.530	0.9400	0.067
Socioeconomic stress	14.8	11.55	3.25	0.204



# SOPD Consultation



# Number of consultations in SOPD before 3S referral

- Range: 1 – 42
- Average: **8.7**
- Median: 5

# Unexpected SOPD attendance

- Participant
  - n=144
  - Unexpected re-attendance=5 (3.47%)
- Defaulter
  - N=76
  - Unexpected re-attendance=4 (5.26%)

The unexpected re-attendance rate for the participants are 36% lower than the defaulters





# Pain-controlling medication prescription pattern



# Drug score

- Paracetamol 1
- Non-steroidal anti-inflammatory drugs (NSAID) 2
- Weak opioids 3



# For the 28 participants completed CDSMP

- Before the enrollment into the programme
  - Average drug score = **1.35**
- After the completion of CDSMP
  - Average drug score = **1**







# Conclusion



# Our high-volume low-cost pilot project has

- demonstrated the effectiveness of the programme for pain patients
- increased patients' well-being including
  - self-management knowledge and skills,
  - sense of self-efficacy,
  - social network,
  - emotion,
  - involvement in community, etc

# Our high-volume low-cost pilot project has


- helped to reduce the health care utilization
- Established flow between hospital and community (synergy, collaboration)
- Facilitated multi-disciplinary collaboration





# Way forward



- 
- Continue the data collection and analysis process
  - Share information with key stakeholders through seminars, publications, media... as to introduce and promote the concept of chronic disease self management to the general public
  - Recruit 'success examples' from the programme as 'models' for potential clients



**The End**

**Thank you!**

