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Integrated Community Mental Health Services (ICMHS): Quality of Life and Patient Satisfaction

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Outline

- Background
- Aim, Objectives, and Research Questions
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Background

Fragmented community mental health services in Hong Kong

- Training and Activity Centre for Ex-mentally Ill Persons
- Community Mental Health Link
- Aftercare Service for Discharges of Halfway Houses
- Community Mental Health Care Services
- Community Rehabilitation Day Services
- Community Mental Health Intervention Project

Integration to bridge and merge fragmented services

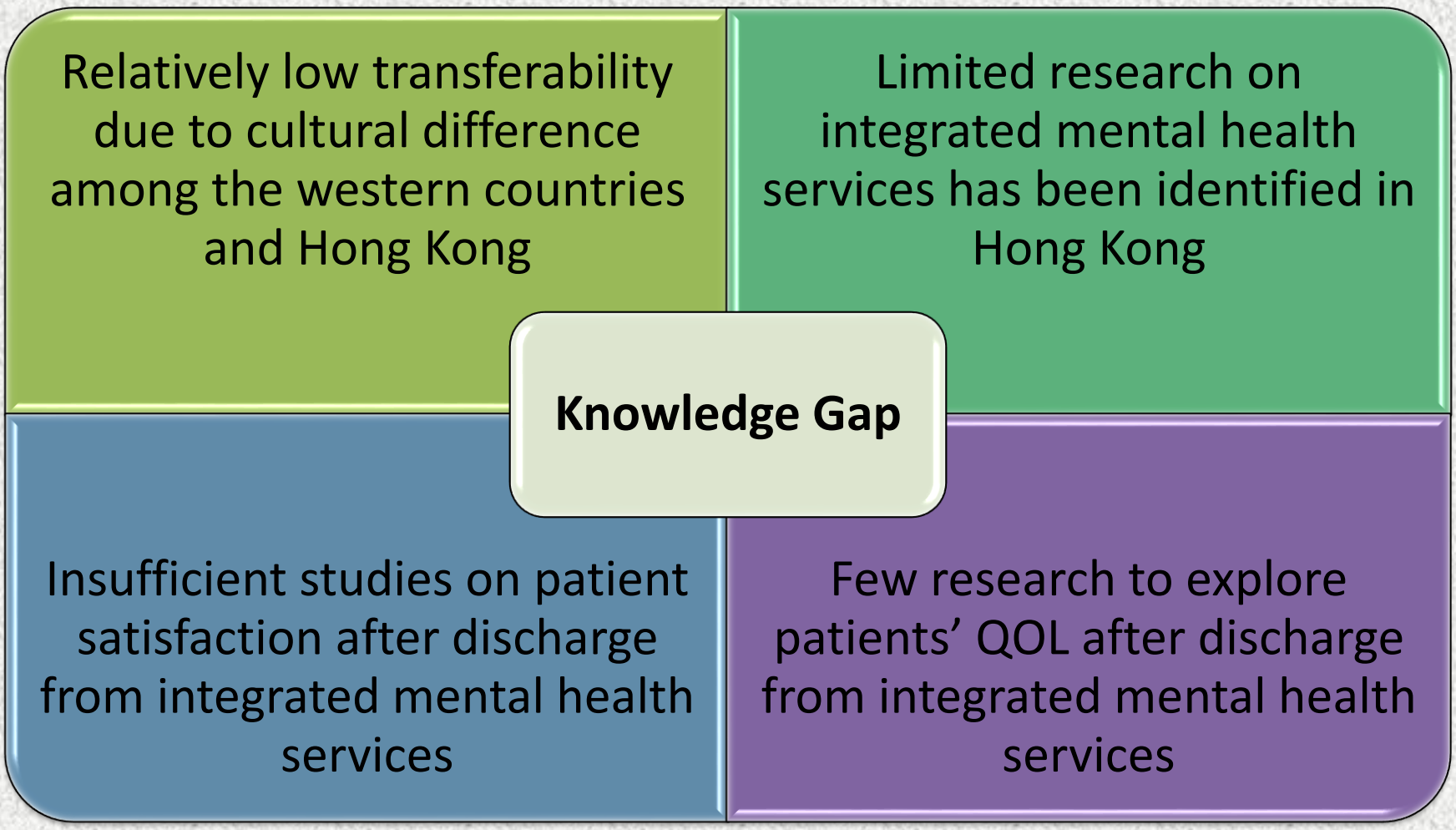
- Social Welfare Department has implemented the Integrated Community Centre for Mental Wellness (ICCMW) in all the districts across the territory since October 2010
- To enhance the social support and re-integration of the ex-mentally ill persons into the community

Integrated community mental health services in Hong Kong: ICCMW

- One-stop
- District-based
- Accessible community support and social rehabilitation services
- Ranging from early prevention to risk management

(Social Welfare Department [SWD], 2010)

Knowledge Gap (after a literature review)



Why QOL & Patient Satisfaction?

Patient-defined outcomes emphasize the importance and uniqueness of the individual experience (Slade, Leese, Cahill, Thornicroft & Kuipers, 2005)

QOL & patient satisfaction: Increasingly acknowledged as critical patient-defined outcomes (Galuppi, Turola, Nanni, Mazzoni & Grassi, 2010; Slade et al., 2005)

- QOL is to achieve a comprehensive and balanced audit of a person's life that goes beyond a disease model of mental health problems (Schneider, Wooff, Carpenter, Brandon & Mcniven, 2002)
- Patient satisfaction is associated with compliance and health outcome (Ruggeri, 1994)

Aim

- To investigate patient-defined outcomes after discharge from an ICCMW

Objectives

- To explore patients' QOL after discharge from an ICCMW
- To study patients' level of satisfaction after discharge from an ICCMW

Research Questions

- What is the patients' QOL after discharge from an ICCMW (within a period of 1-10 months)?
- What is the patients' level of satisfaction after discharge from an ICCMW (with the same period)?
- Is there any relationship between patients' QOL and their level of satisfaction after discharge from an ICCMW?

Research Methods

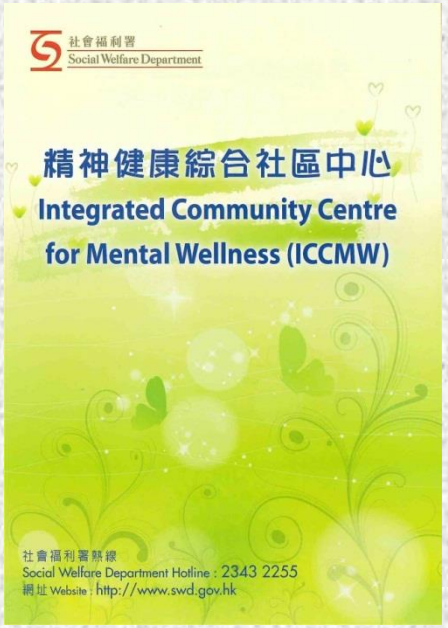
Research Design	Quantitative descriptive study
Target Population	Members discharged from ICCMW
Sampling Strategy	Convenience sampling
Sampling Method	Accessible sample from the chosen ICCMW: Total number of patients discharged over 1 year from April 2012 to March 2013 = 206
Data Collection	• Face-to-face survey interviews

Timing of Discharge	No. of Patients
April 2012 - June 2012	25
July 2012 - September 2012	44
October 2012 - December 2012	89
January 2013 - March 2013	48

- Original estimated period of data collection: from late May 2013 to August 2013

Research Setting

Venue:



- 11 NGOs operating 24 ICCMWs in 18 districts as of October 2010 (SWD, 2010)
- The chosen ICCMW serves a region of the New Territories

Mental Health Services → Integrated Community Mental Health Services → ICCMW

(SWD, 2010)

Inclusion and Exclusion Criteria

Inclusion criteria

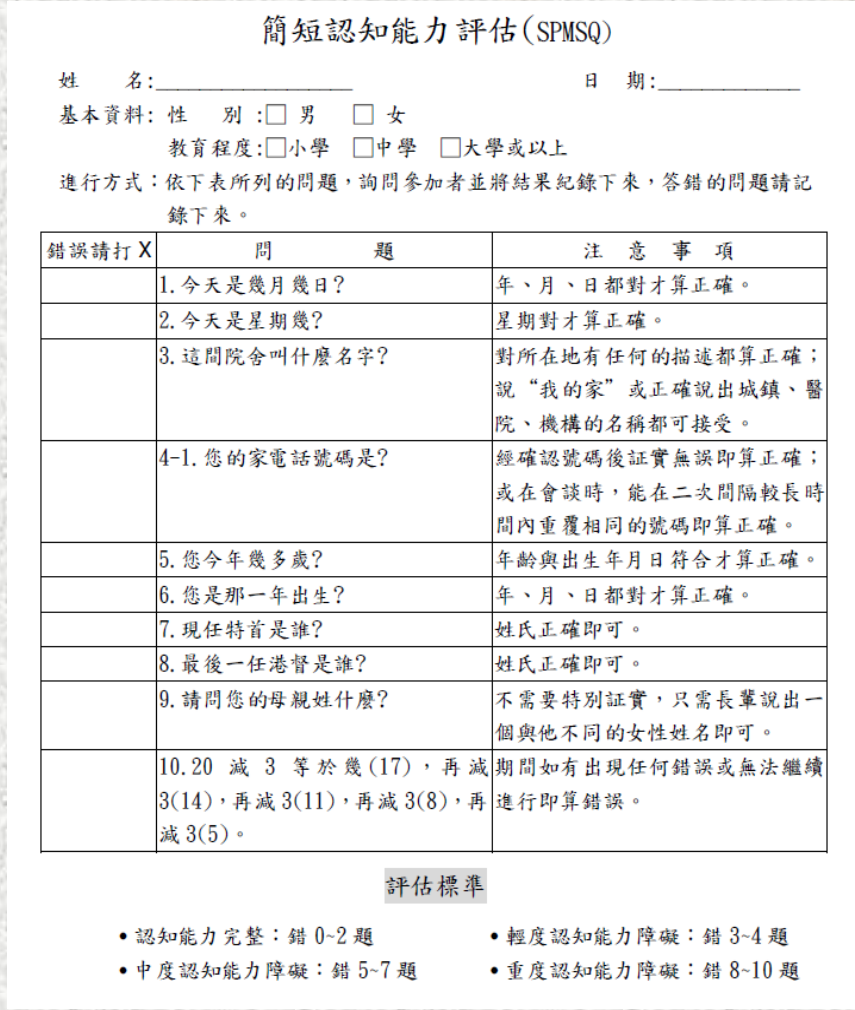
- 15 years of age or above
- Hong Kong residents
- Used to attend the chosen ICCMW with at least one psychiatric diagnosis categorized by DSM-IV
- Discharged from October 2012 to March 2013 (as a pilot)

Exclusion criteria

- Non-Cantonese speakers
- Short Portable Mental Status Questionnaire (SPMSQ) score below 8/10 (More than 2 wrong answers) (Chi & Boey, 1993; Pfeiffer, 1975)

Short Portable Mental Status Questionnaire (SPMSQ)

No. of Items	10
Completion Time	3-5 minutes
Validity Test	Significant differences in comparing mean scores between normal group and clinical group: 7.1 vs. 2.6 (t=6.7, p<0.005) (Chi & Boey, 1993)
Reliability Test	Test-retest reliability=0.70, p<0.001 (Chi & Boey, 1993)
Cut-off Score	More than 2 wrong answers are considered failing the test (0-2: cognitively intact; 3-4: mildly impaired; 5-7: moderately impaired; and 8-10: severe impaired)



簡短認知能力評估(SPMSQ)

姓　　名:_____　　日　期:_____

基本資料: 性　別 :□ 男　□ 女

教育程度:□小學　□中學　□大學或以上

進行方式：依下表所列的問題，詢問參加者並將結果紀錄下來，答錯的問題請記錄下來。

錯誤請打 X	問　題	注　意　事　項
	1. 今天是幾月幾日?	年、月、日都對才算正確。
	2. 今天是星期幾?	星期對才算正確。
	3. 這間院舍叫什麼名字?	對所在地有任何的描述都算正確；說“我的家”或正確說出城鎮、醫院、機構的名稱都可接受。
	4-1. 您的家電話號碼是?	經確認號碼後証實無誤即算正確；或在會談時，能在二次間隔較長時間內重覆相同的號碼即算正確。
	5. 您今年幾多歲?	年齡與出生年月日符合才算正確。
	6. 您是那一年出生?	年、月、日都對才算正確。
	7. 現任特首是誰?	姓氏正確即可。
	8. 最後一任港督是誰?	姓氏正確即可。
	9. 請問您的母親姓什麼?	不需要特別証實，只需長輩說出一個與他不同的女性姓名即可。
	10. 20 減 3 等於幾(17)，再減 3(14)，再減 3(11)，再減 3(8)，再減 3(5)。	期間如有出現任何錯誤或無法繼續進行即算錯誤。

評估標準

- 認知能力完整：錯 0~2 題
- 輕度認知能力障礙：錯 3~4 題
- 中度認知能力障礙：錯 5~7 題
- 重度認知能力障礙：錯 8~10 題

(Chi & Boey, 1993)

Instruments

	Demographics	QOL after Discharge from an ICCMW
Instrument	Lehman Quality of Life Interview – Full Version (Section A) (Lehman, 1983)	Lehman Quality of Life Interview – Brief Version (QOLI – BV) (Lehman, Kernan, & Postrado, 1995)
Domains	• Age • Gender • Date of Birth • Marital Status • No. of Children • Education • Occupation	1. General Life Satisfaction 2. Living Situation 3. Daily Activities and Functioning 4. Family 5. Social Relations 6. Finances 7. Work and School 8. Legal and Safety Issues 9. Health 10. Global Rating (Repeats Domain 1)
No. of Items	12	26 7-point Likert scales over 9 domains: Subjective 25 items with various rating scales over 7 domains: Objective 27 miscellaneous items
Completion Time	3-5 minutes	20-25 minutes
Psychometrics Properties	N/A	Internal consistency reliability = 0.56-0.87 (Lehman, Kernan, & Postrado, 1995) Alternative form reliability = 0.64-0.81, $p<0.001$ (Lehman, Kernan, & Postrado, 1995)

Lehman QOLI – BV

Reasons for Modification (Section A, B & F)

1. To ensure the categorical items in the questionnaire are relevant to the objectives and Hong Kong situation of the present study:

Face Validity was checked with 3 mental health experts on Section A (FV), Sections B & F (BV)

- ✓ An assistant professor from School of Nursing, PolyU
- ✓ A senior clinical associate from School of Nursing – Mental Health, PolyU
- ✓ A registered social worker (case supervisor) from an ICCMW

2. To reach consensus of the Chinese language and meanings of the questionnaire among interviewers

Instruments

Level of Satisfaction after Discharge from an ICCMW		
Instrument	Risser Patient Satisfaction Scale (RPSS) (Risser, 1975)	Risser Patient Satisfaction Scale – Chinese Version (RPSS – CV) (Chan & Yu, 1993; Risser, 1975)
Domains	English Version • Technical-Professional • Educational Relationship • Trusting Relationship	**Chinese Version** • Not specified
No. of Items	25 5-point Likert scales (1 = strongly agree / satisfactory to 5 = strongly disagree / unsatisfactory)	26 5-point Likert scales (1 = strongly agree / satisfactory – 5 = strongly disagree / unsatisfactory) 2 open-ended questions 1 Yes – no question (overall need sat)
Completion Time	10-15 minutes	
Validity Test	---	Content validity index = 0.89 (Chan & Yu, 1993)
Reliability Test	On cancer patients: Cronbach's alpha = 0.78 ($p < 0.001$) Kappa coefficientK = 0.89 (95% CI: 0.83-0.91, $p < 0.0001$) (Charalambous & Adamakidou, 2012)	On mental health patients: Test-retest reliability = 0.7 (Chan & Yu, 1993)

Pilot Study

Size	Evaluation	Outcomes
• 11 patients successfully recruited	• To evaluate the feasibility of interviewing patients with the instruments	• To reveal any limitations that were not foreseen • To assess how long a complete investigation will take for each subject • To obtain an impression of subjects' cognitive level • To allow researchers to make necessary modifications

Outcome of the pilot study:

- ➢ Response rate was low: Only 11 out of 24 invited patients in 2 months provided consent to face-to-face interviews

Modifications made to speed up the recruitment process:

- ✓ Telephone interview was adopted unless the subjects also welcome a face-to-face interview
- ✓ Lengthened the discharge period in the set of inclusion criteria (originally set at October 2012 - March 2013) for the full study (March 2011 - March 2013)
- ✓ The researchers conducted the telephone interviews in ICCMW

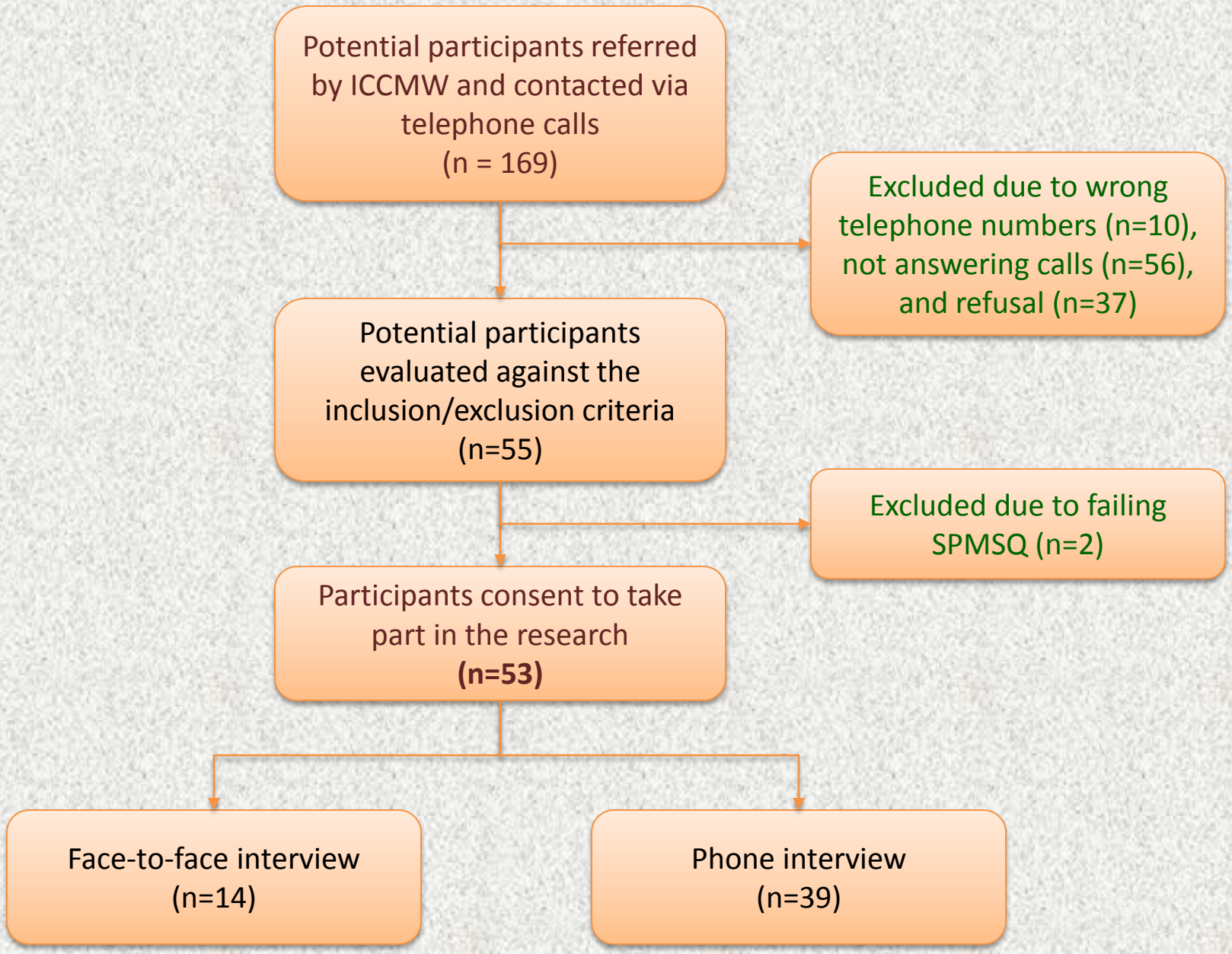


Figure 1. Flow chart of subject recruitment procedure

Data Analysis

Descriptive Statistics (1)

- To statistically describe demographic data, patients' QOL and their level of satisfaction 2-30 months after discharge from an ICCMW
- Means, Standard Deviations, Percentages, Frequencies

Descriptive Statistics (2)

- To compare the QOL and level of satisfaction after discharge from an ICCMW (within the same period) of subjects with different demographics
- Mann-Whitney U Test

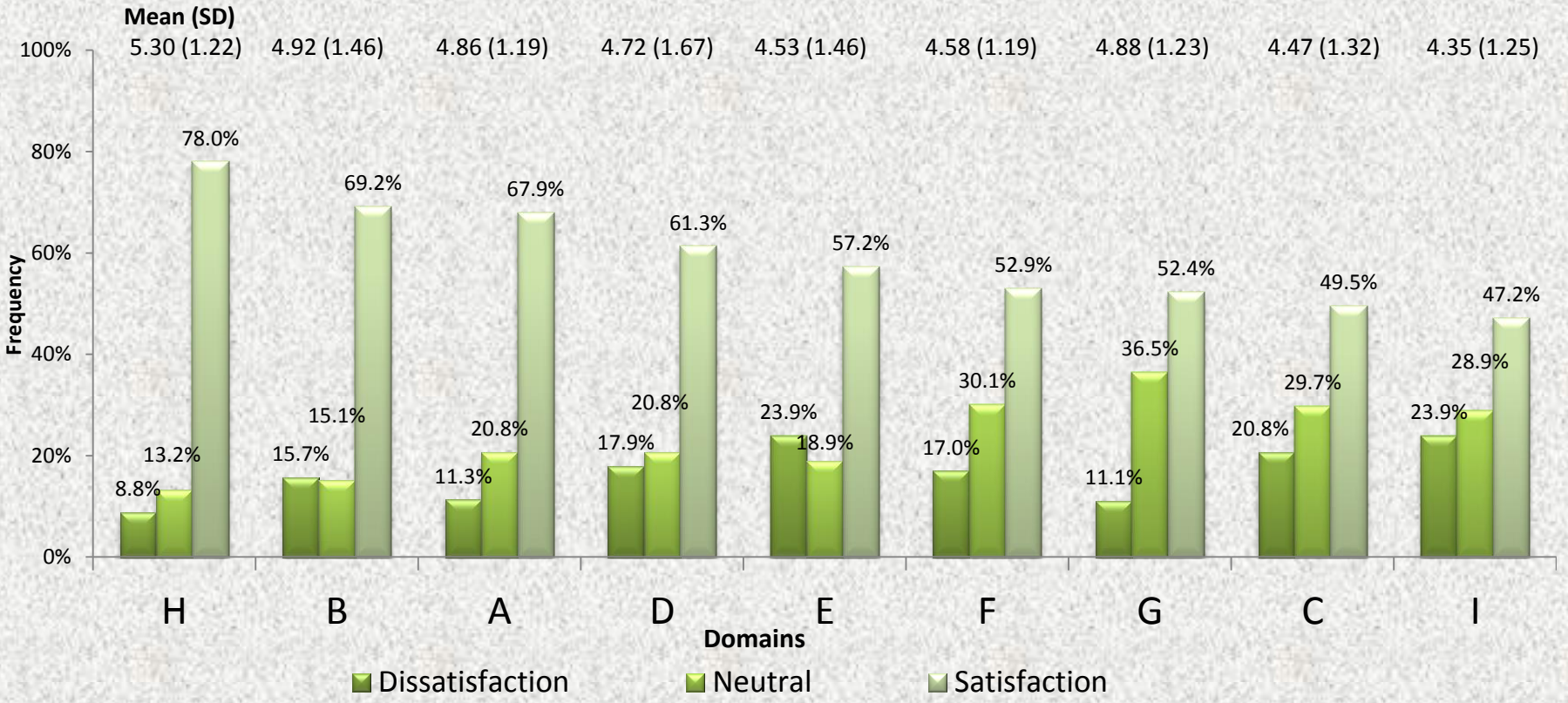
Correlational Analysis

- To determine the relationship between patients' QOL and their level of satisfaction after discharge from an ICCMW
- Pearson's *r*

Results

Demographic Characteristics		
Sex	Male	n = 25 (47.2 %)
	Female	n = 28 (52.8 %)
Age	15-24	n = 8 (15.1 %)
	25-34	n = 4 (7.5 %)
	35-44	n = 5 (9.4 %)
	45-54	n = 20 (37.7 %)
	55-64	n = 10 (18.9 %)
	65-74	n = 4 (7.5 %)
	75-84	n = 1(1.9 %)
Education	No Schooling	n = 4 (7.5 %)
	Primary	n = 5 (9.4 %)
	Secondary	n = 37 (69.8 %)
	Tertiary	n = 7 (13.2 %)
Household Composition	With Partner	n = 19 (35.8 %)
	Without Partner	n = 33 (62.3 %)
Ethnicity	Caucasian	n = 1 (1.9 %)
	Mainland Chinese	n = 10 (18.9 %)
	Hong Kong Chinese	n = 42 (79.2 %)
Employment Status	Currently Employed	n = 21 (39.6 %)
	Not Currently Employed	n = 32 (60.4 %)

Figure 2 QOL – Subjective Scales



A - General Life Satisfaction (n = 53)
B - Satisfaction with Living Situation (n = 53)
C - Satisfaction with Daily Activities (n = 53)
D - Satisfaction with Family Contact (n = 53)
E - Satisfaction with Social Relations (n = 53)
F - Satisfaction of Finances (n = 51)
G - Job Satisfaction (n = 21)
H - Satisfaction with Safety (n = 53)
I - Satisfaction with Health (n = 53)

QOL – Subjective Scales

- **General Life Satisfaction**
  - **67.9% satisfied**
  - General Life Satisfaction (4.86) vs Global Rating about Life in General (4.87), p = 0.917
- Highest satisfied domain
  - Safety (78%)
- Lowest satisfied domain
  - Health (47.2%)
- < 50% satisfaction
  - Health (47.2%)
  - Daily activities (49.5%)
- > 20% dissatisfaction
  - Social relations (23.9%)*
  - Health (23.9%)
  - Daily activities (20.8%)

* Satisfied = 57.2%

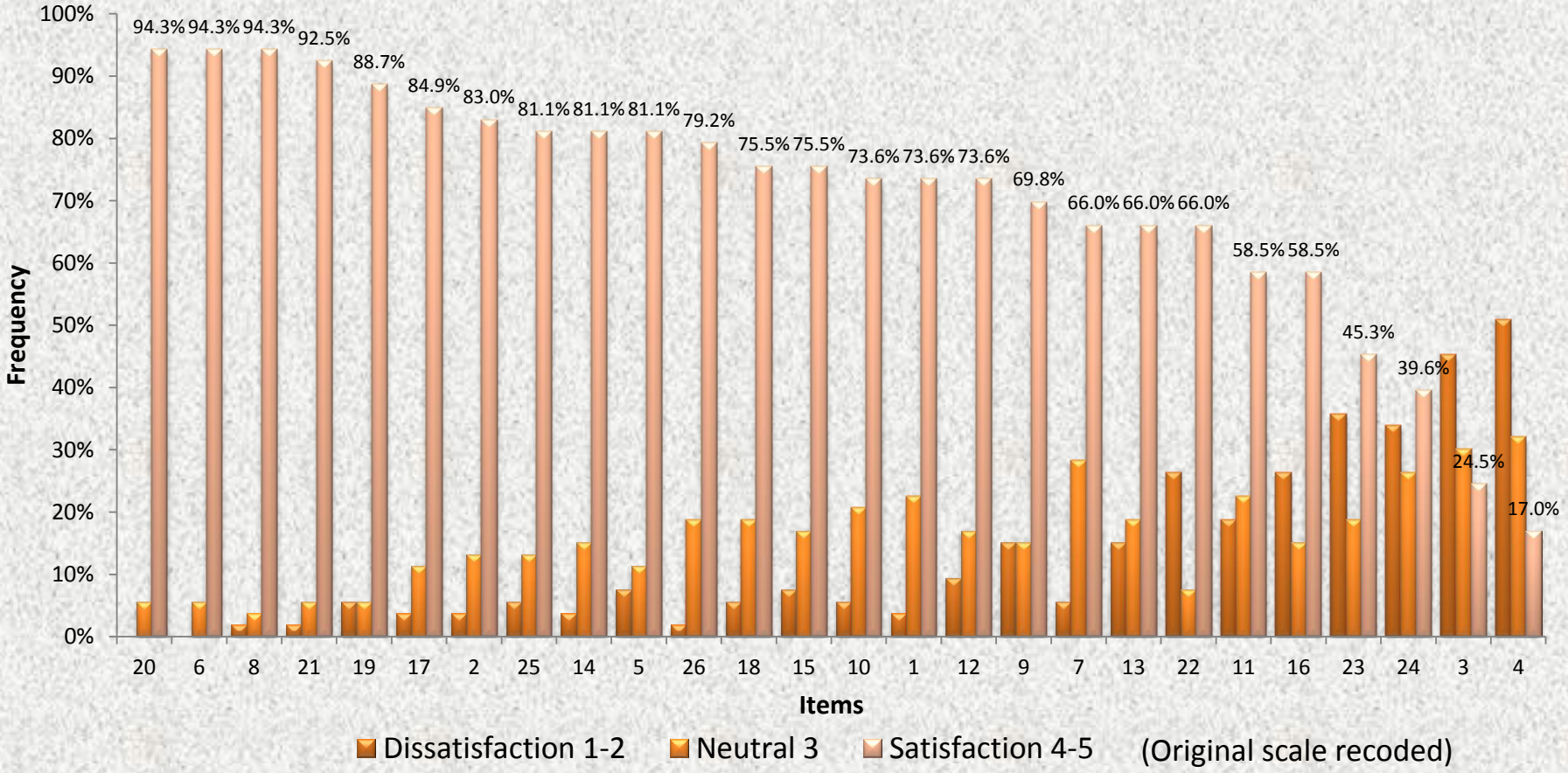
QOL – Objective Scales

Domains	Mean (SD)
Daily Activities (0 = No, 1 = Yes)*	0.74 (0.21)
Family Contact (1 = not at all **to** 5 = at least once a day)*	3.81 (1.08)
Social Contact (1 = not at all **to** 5 = at least once a day)*	2.54 (1.00)
Financial Adequacy (0 = No, 1 = Yes)*	0.79 (0.27)
Amount of Money Spent on Self Per Month	2,353 (2,276)
Currently Employed (1 = Yes, 2 = No)	0.58 (0.66)
Victimization (0 = No, 1 = Yes)	0.06 (0.16)
No. of Time Arrested	0 (0)

* Mean calculation recommended by QOLI-BV manual

Figure 3 Patient Satisfaction

n=53	Q20	Q6	Q8	Q21	Q19	Q17	Q2	Q25	Q14	Q5	Q26	Q18	Q15	Q10	Q1	Q12	Q9	Q7	Q13	Q22	Q11	Q16	Q23	Q24	Q3	Q4
Mean	4.06	4.09	4.09	4.13	3.83	3.92	3.96	3.83	3.83	3.79	3.91	3.79	3.77	3.75	3.87	3.72	3.64	3.66	3.60	3.36	3.45	3.40	3.06	3.11	2.77	2.62
SD	0.41	0.45	0.53	0.59	0.70	0.62	0.68	0.64	0.67	0.82	0.63	0.69	0.80	0.68	0.73	0.74	0.92	0.76	0.93	0.96	0.99	1.03	0.97	1.01	0.91	0.88



Overall Needs Satisfaction

Do you feel satisfied with the process of service provided by ICCMW that it can fulfill your needs?

Yes = 92.5%

Low Means Satisfaction Scores

Q3 Healthcare workers should be more concerned about you. (2.77, SD 0.91; ~45%)

Q4 After participating the activities each time, you hope that healthcare workers can explain more to you about your illness and its progress, or provide therapy. (2.62, SD 0.88; ~52%)

Patient Satisfaction (Open Comments)

Areas of Satisfaction

- Genuine and welcoming staff
- “Professional” (*in vivo*) and diligent staff
- Popular group events and follow-up services
- Instrumental and psychosocial support

Areas for Improvement

- To increase frequency/duration of contacts
- To maintain continuity of services
- To enhance promotion of events
- To expand services and resources
- To improve professionalism of staff

Differences in QOL
by Demographic Factors

	General Life Satisfaction	*p*	Satisfaction with Social Relations	*p*
	Mean Rank (Mann-Whitney U)		Mean Rank	
Sex				
Male	24.18	0.204 *	21.68	0.017
Female	29.58		31.75	
Household Composition				
With Partner	32.00	0.044	32.37	0.033
Without Partner	23.33		23.12	

* No significant difference

Differences in Patient Satisfaction by Demographic Factors

	*Q4 Mean Rank	*p*	Q11 Mean Rank	*p*	Q12 Mean Rank	*p*	*Q16 Mean Rank	*p*
Sex								
Male	31.26	0.042	22.32	0.025	23.14	0.041	31.40	0.035
Female	23.20		31.18		30.45		23.07	

* - ve questions

*Q4	After participating the activities each time, you hope that healthcare workers can explain more to you about your illness and its progress, or provide therapy.
Q11	You prefer to see the healthcare worker alone. It's inconvenient to have other patients or my family members being there together.
Q12	Healthcare workers explain your illness, symptoms and outlook clearly.
*Q16	You feel difficulties in communication if the healthcare worker is different to your gender.

	*Q3 Mean Rank	*p*	Q10 Mean Rank	*p*	Q14 Mean Rank	*p*	Q15 Mean Rank	*p*	Q17 Mean Rank	*p*	Q18 Mean Rank	*p*
Household Composition												
With Partner	21.11	0.039	31.37	0.034	31.18	0.026	31.50	0.033	32.13	0.009	31.89	0.019
Without Partner	29.61		23.70		23.80		23.62		23.26		23.39	

*Q3	Healthcare workers should be more concerned about you.
Q10	Healthcare workers explain fully about the importance of taking regular medications and your follow-up arrangement.
Q14	Healthcare workers understand your feelings.
Q15	When the healthcare worker plans the service for you needs, he/she consider your opinions & preferences.
Q17	You feel relaxed to ask questions or express your feelings to the healthcare workers.
Q18	Healthcare workers make you feel safe, because they are good at looking after mental health patients, e.g. they understand you well and your problems, or are able to deal with your emergency conditions.

QOL vs Patient Satisfaction

- Both outcomes indicate a "neutral"-tending-to-"satisfied" level of QOL and patient satisfaction
- However, there is no correlation between QOL and patient satisfaction in this sample
- They are clinically comparable in terms of the tendency towards satisfaction but such relationship between them is not proven statistically

	Mean (SD)	**Pearson *r***	***p***
Overall Patient Satisfaction	3.66 (0.27)	0.069	0.625
General Life Satisfaction	4.86 (1.19)		

Discussion 1: QOL

Our Study	Other Studies	Comparisons
General Life Satisfaction: "Neutral" tending to "Satisfied"	**Self and Present Life Satisfaction (from another ICCMW in 2010 in Hk - unpublished)** ▪5-level Likert scale: "Very Dissatisfied"(0) to "Very Satisfied"(4) ▪**Pre-test Mean=2.07; Post-test Mean=2.26** ▪Both pre/post tests (p<0.05) are "Neutral"-tending-to-"Satisfied" but higher satisfaction level in post-treatment (W. Mak, personal communication, October 18, 2013)	▪The study being compared was conducted in the first ICCMW in Hong Kong ▪**The study being compared had conducted pre/post tests, which was not feasible in our study. Our finding of a tendency towards patient satisfaction is comparable with their results**
Satisfaction with Social Relations: Over 50 % of clients were satisfied (57.2 %)	Level-of-Functioning Scale ▪Subjective rating of social functioning to engage better in social circle achieved significant improvement as compared with control group (p<0.05) (Boettcher, Jakes & Sigal, 2008)	▪The study being compared was about ICMHS for seriously mentally ill patients ▪**It had a control group which was not feasible in our study. Our finding of moderate satisfaction in social relations is comparable with their results of improvement in social functioning**
No difference in QOL by employment status	WHO-QOL26 ▪WHO-QOL26 scores were not significantly different between the working and non-working groups: employment status had no strong influence on subjective QOL (Sakai, Hashimoto & Inuo, 2009)	▪Setting of the compared study was ICMHS in an Asian city ▪**Results of our QOL survey supplemented their findings**

Discussion 2: Patient Satisfaction

Our Study	Other studies	Comparisons	Implications
Overall Patient Satisfaction: "Neutral"-tending-to "Satisfied"	Client Satisfaction Questionnaire-8 ▪ Scored by summing the individual item scores to produce a range of 8 to 32, with higher scores indicating greater satisfaction ▪ Treatment clients outperformed control clients on measures of level of client satisfaction (Cs=24.46; Ts=29.48; *p*=0.0001) ▪ "Good"-tending-to-"Excellent" (Boettcher, Jakes & Sigal, 2008)	▪ The study being compared was conducted under a similar setting of ICMHS ▪ The study being compared adopted an experimental research approach with a control group, which provided stronger statistical evidence	▪ **Finding of other studies with "Good"- tending-to-"Excellent" and "Satisfied"-tending-to-"Very Satisfied" is comparable with our finding of "Neutral"-tending-to-"Satisfied" level of patient satisfaction. This implies that ICCMW has room for improvement** ▪ **However, due to limitations of our study (small sample size, single center, without randomization), new finding of relatively lower satisfaction level of ICCMW may not be as sound and accurate as they appear**
	Kansas Consumer Satisfaction Survey ▪ 5-point Likert scale: "Strongly Agree"(5) to "Strongly Disagree"(1) ▪ "Satisfied" tending to "Very Satisfied" (Mean=4.1667 in 2006; Mean=4.1067 in 2008/2009) ▪ Patients were more satisfied with the service over time (Tierney & Kane, 2011)	▪ The study being compared was conducted under a similar setting of ICMHS ▪ The study being compared conducted a retrospective review of survey data to compare and reveal the trend of the rising satisfaction over time with a stronger statistical evidence	

Discussion 3:
Relationship between QOL & Patient Satisfaction

Our Study	No significant correlation
Other Studies	▪ An integrated community mental health program for mentally ill patients was evaluated to determine satisfaction with services and QOL of consumers over 3 years ▪ Patients were satisfied with treatment services and had a fair-to-good QOL ▪ Satisfaction and QOL were moderately correlated (r=0.426, p<0.01), which was different from our finding (Tierney & Kane, 2011)
Comparisons	▪ Intervention in the compared study was a bio-medically oriented illness management program to promote illness self-management, increase adherence to standards of care, and increase knowledge of illness and treatment, whereas ICCWM is a diversified and multi-faceted psychosocial intervention ▪ Core differences in the vision of services may account for the discrepancy

Implications

To pay more attention to patients without partner

→ In particular, to work on improving patients' social relations , e.g., to set up daytime social centers and improve variety of group events

To provide adequate education and further information regarding progress and treatment of patients' illnesses

To develop a patient satisfaction scale particularly for integrated (multi-disciplinary) mental health services

To conduct a qualitative study to better understand in depth the post-ICCMW community life and service experience / satisfaction of these patients

Limitations

Generalizability

- Small sample size
- Study conducted in only one ICCMW, limiting the generalizability of the results

Sampling bias

- Convenient sample
  - Subjects' timing of discharge spread over a relatively longer period of time (2-30 months) → May dilute survey results
- Non-response bias

Limitation by Design

- Design cannot make a prospective pre / post comparison within one group of subjects, or compare between two groups with / without ICCMW services

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