RCN International Nursing
Research Conference 2018

Royal College of Nursing

5.5 Room: **CM04**

Theme: **Mental Health**

Method: **Mixed Approaches**

Chair: **Katie Pybus**

Effectiveness of Mindfulness-based Bibliotherapy Group Program in Early-stage Psychosis

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Interventions for Early Psychosis

- People with psychosis are unprepared for the illness and continue to experience:
  - disabling psychotic symptoms, impaired social / occupational functioning, thus frequent relapses [Frank et al. 2009].
- Current psychosocial interventions for early psychosis in the US/Europe improved patients' knowledge of the illness/Tx, functioning and relapse [Lutgens et al. 2017]
- To empower long-term self-management of their illness and functioning, psychosocial interventions need to address their *insights into the illness*, *acceptance and positive thoughts/feelings*, yet limited research is noted.

Background

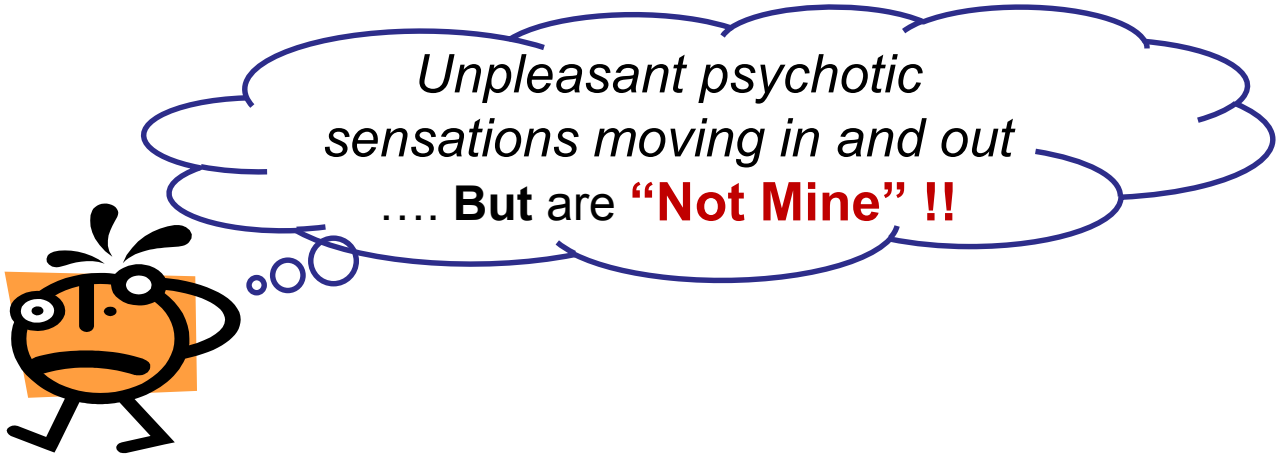
- *Patient's self-empowerment of illness management* through education, problem-solving, enhancing insight, and coping skills training produces more benefits in psychosis [NICE, 2014; Bustillo et al., 2001]
- Bibliotherapy (*therapy in book form*) is a self-help and empowering intervention:
  - Providing written information/guidance for illness Mx
  - Emphasizing problem-solving to resolve life problems
  - Learning at own pace and time convenience
  - Scenarios and life-story examples for self-reflection

- Mindfulness (insight meditation) programme, which is a trained voluntary deployment of *attention and perception*, aiming at:
  - *Self-regulation of attention, decentering, awareness* of and *changing relationships with unwanted* thoughts, sensations and feelings
  - *Increase openness, acceptance of inner experiences* with calmness, non-reactivity and non-judgment; observing and describing
  - With kindness and compassion to the symptoms

… *regulating and embracing the present negative emotions and experiences*

Background

- Chadwick et al.'s (2005) pilot trial suggests:
  - Mindfulness-based intervention can focus on how people *relating with and responding to their psychotic experiences* rather than identifying and directly challenging thoughts and beliefs about these experiences
  - psychotic sensations → *awareness and acceptance* → transient experiences that are *NOT accurate reflection of reality* - "***not me***" !!



Aim of The Study

Aim: To test the effects of a mindfulness-based bibliotherapy program (MBBP) for early psychosis on patients' mental state, functioning, insights into illness, and re-hospitalizations over 18 months follow-up

Hypotheses:

- Compared with psychoeducation group and treatment-as-usual only (TAU), at 1 week, *6 months* and 18 months post-intervention, the MBBP would produce significantly greater improvements on patients':
  - Re-hospitalization rate and mental state (**primary outcomes**)
  - Psychosocial functioning and illness insight (secondary outcomes)

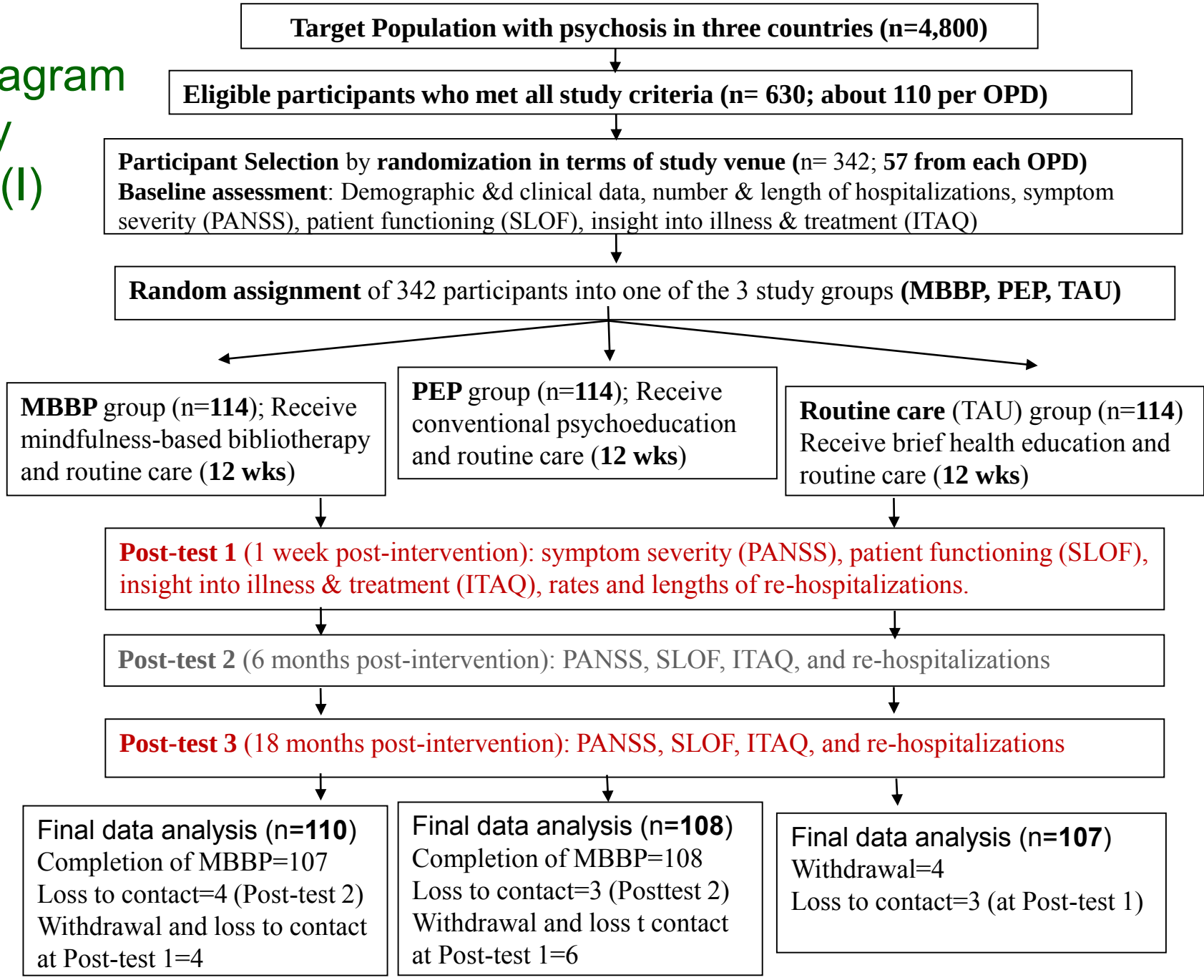
Design

- A randomized controlled trial with repeated-measures, 3-arm design
  - Measurements at recruitment and 1 week and 18 months after intervention (+ follow-up at 6 months)
- From ***6 OPDs*** (2 clinics in each of 3 countries), **342** stratified (equal number in 6 clinics) randomly selected patients (aged 18>, primarily psychosis):
  - Chinese residents, <5 years' illness onset
  - Global Assessment of Functioning scores of 51>
  - Able to understand the questionnaire, training instructions and Cantonese/Mandarin
  - Excluded those receiving other psychotherapies; co-morbidity of severe mental or medical diseases

Sample size

- 98 patients per arm to provide:
  - 90% power (2-sided p<0.05)
  - change in symptom severity (PANSS) score of 3.5 points, assuming one SD=2.0 (Tabachnick & Fidell, 2006)
  - achieving an average ES of 0.52 based on 5 RCTs of psycho-education groups in Chinese people with psychosis [Chien et al., 2010, 2012, 2013; Chan et al., 2008; Guo et al., 2010]
  - An expected inter-cluster difference of r=0.1
- Estimating ~15% attrition rate, 114 patients per group will be recruited (i.e., 57 participants from each of 6 OPDs)
- After pre-test, randomly assigned into one of the 3 arms

Flow Diagram of Study Design (I)



Main Content of MBBP

- 12 sessions (weekly, 2-hour), led by a trained mindfulness therapist (co-investigator), consisting of three phases (and 6 themes):
  - Phase I: Orientation and engagement, focused awareness and control of psychotic symptoms;
  - Phase II: Educational about schizophrenia, its treatment and care; and
  - Phase III: Strategies in relapse prevention, community supporting resources and future planning

Six themes of MBBP

1. Orientation and engagement (2 sessions)
- **M1:** Knowledge of psychosis, treatment and services
2. Mindful/focused awareness of body sensation & thoughts (2)*
- **M2:** Promoting well-being and social participation
3. Self-control of symptoms & negative thoughts (3)*
- **M3:** Dealing with illness impacts on psychosocial health
4. Education workshop on psychosis care in the community (2)*
- **M4:** Problem-solving on difficult life events or situations
5. Illness management and behavioral rehearsals of relapse prevention (2)*
- **M5:** Dealing with its impacts on physical and family well-being
6. Establishing community support and future plans (1)*

* ***Homework:*** Body scan; Breath and awareness and mindfulness thereof; Focusing on pleasant & annoying events; Focused awareness of body, thoughts & feelings

Details of the Mindfulness program

Brief Reports

The Mindfulness-Based Psychoeducation Program for Chinese Patients With Schizophrenia

Chien WT, Lee IYM, 2013. *Psychiatric Services 64*: 376-379

Objectives: This study tested the effectiveness of a mindfulness-based psychoeducation program for Chinese outpatients with schizophrenia over an 18-month follow-up. The program is a psychoeducational program that addresses patients' awareness and knowledge of schizophrenia and builds skills for illness management. ***Methods:*** A multisite controlled trial was conducted with 96 Chinese patients with schizophrenia in Hong Kong. They were randomly assigned to either the mindfulness-based psychoeducation program or usual psychiatric care. The patients' mental and psychosocial functioning, insights into illness, and rehospitalization rates were measured at recruitment and at three and 18 months post-intervention. ***Results:*** Compared with those in usual care, the patients in the mindfulness psychoeducation program showed significantly greater improvements in their illness insights, symptom severity, functioning, and number and length of rehospitalizations at the 18-month follow-up. ***Conclusions:*** The findings provide evidence that the mindfulness-based education program can improve Chinese schizophrenia sufferers' psychosocial functioning and reduce their illness relapse. (*Psychiatric Services* 64:376–379, 2013; doi: 10.1176/appi.ps.002092012)

Br J Psychiatry. 2014 Jul; 205(1): 52-59. doi: 10.1192/bjp.bp.113.134635.

Effects of a mindfulness-based psychoeducation programme for Chinese patients with schizophrenia: 2-year follow-up

Wai-Tong Chien and David R. Thompson

Background

Psychoeducation programmes for people with schizophrenia are shown to reduce relapses but few studies have indicated significant improvements in patients' illness awareness and insight, functioning, symptom severity or rates of readmission to hospital.

Aims

To examine the effects of a mindfulness-based psychoeducation programme for Chinese people with schizophrenia.

Method

A multisite randomised controlled trial was conducted with 107 out-patients with schizophrenia: 36 and 35 received a 6-month mindfulness-based psychoeducation and a conventional psychoeducation programme, respectively, and 35 received routine care alone. Patient outcome measures were psychiatric symptom severity, psychosocial functioning, social support, insight into illness/treatment, and frequency and duration of readmissions to hospital (ClinicalTrials.gov: trial registration NCT01667601).

Results

The mindfulness-based psychoeducation group reported significantly greater improvements in psychiatric symptoms, psychosocial functioning, insight into illness/treatment and duration of readmissions to hospital over 24 months when compared with the other two groups.

Conclusions

Mindfulness-based psychoeducation appears to be a promising approach to treatment for Chinese patients with schizophrenia.

Declaration of interest

None.

Outcome measures

- Re-hospitalization rate: duration and length of hospitalizations over past 4-6 months
- Mental state – Positive and Negative Syndrome Scale (PANSS) (Kay, Fiszbein & Opler, 2007)
- Insights into illness - Insights and Treatment Attitude Questionnaire (ITAQ) (McEvoy et al., 1989)
- Patient functioning – Specific Level of Functioning Scale (SLOF) (Schneider & Struening, 1983)

Data Analysis - Outcomes

- Attendance and drop-outs of patients in the MBBP and PEP were recorded.
- *Homogeneity* of the 3 groups examined by comparing the socio-demographic data and baseline outcome scores between groups - Chi-square or ANOVA test
- *Mixed-model MANOVA* followed by contrasts tests to assess any differences on outcome variables within & between groups across post-tests (1 week and 18 months follow-up)
- Data analyzed on an *intention-to-treat* basis

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Results - **Demographics**

Characteristics	MBBP (n= 114)	PEP (n= 114)	TAU (n= 114)	Non-participants (n= 316)	Test value [a]	P
Gender (f, %)					1.50	0.22
Male	72, 63.2	70, 61.4	74, 64.9	190, 60.1		
Female	42, 36.8	44, 38.6	40, 35.1	126, 39.9		
Age (years, mean±SD)	25.1±6.8	25.8± 7.9	26.0±8.5	25.9±12.8	1.92	0.11
18-29 (f, %)	38, 33.3	37, 32.5	36, 31.6	112, 35.4		
30-39 (f, %)	44, 38.6	42, 36.8	48, 42.1	110, 34.8		
40-49 (f, %)	32, 28.1	35, 30.7	30, 26.3	94, 29.8		
Education level (f, %)					1.89	0.14
Primary school or below	26, 22.8	28, 24.6	23, 20.2	80, 25.3		
Secondary school	68, 59.7	65, 57.0	70, 61.4	185, 58.6		
University or above	20, 17.5	21, 18.4	21, 18.4	51, 16.1		
Primary diagnosis (f, %)					1.21	0.20
First-onset with hallucinations	61, 53.5	58, 50.9	59, 51.8	188, 59.5		
Brief psychotic episode(s)	15, 13.2	14, 12.3	12, 10.5	33, 10.4		
Delusional disorder	25, 21.9	26, 22.8	27, 23.7	61, 19.3		
Other psychotic disorders	13, 11.4	16, 14.0	16, 14.0	34, 10.8		
Monthly household income (HKD; mean±SD)	15,130±3,781	14,075±4,105	14,887±4,870	17,012±5,976	1.90	0.12
5,000 – 10,000 (f, %)	15, 13.2	12, 10.5	14, 12.3	45. 14.2		
10,001 – 15,000 (f, %)	38, 33.3	39, 34.2	37, 32.5	115, 36.4		
15,001 – 25,000 (f, %)	36, 31.6	37, 32.5	38, 33.3	110, 34.8		
25,001 – 35,000 (f, %)	25, 21.9	26, 22.8	25, 21.9	46, 14.6		

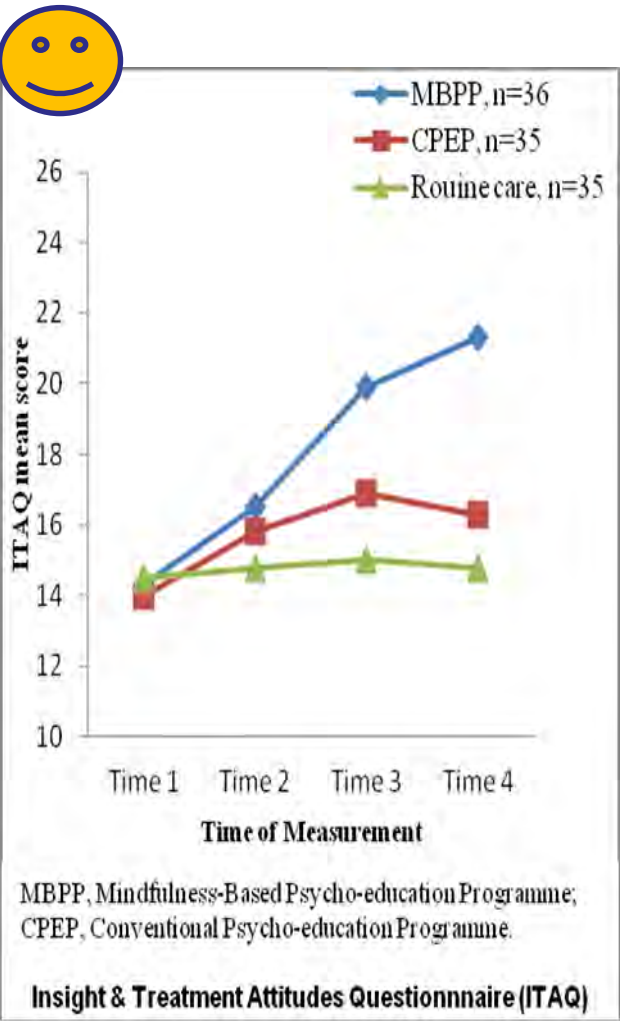
Demographics (continued)

Characteristics	MBBP (n= 114)	PEP (n= 114)	TAU (n= 114)	Non-participants (n= 316)	F or H statistics	P
Duration of illness range (years, mean ± SD)	2.6 ± 2.1, 0.25-5	2.5 ± 1.7, 0.5-4.5	2.7 ± 1.9, 0.5-5	2.6 ± 2.4, 0.25-5	*1.95*	0.15
< 1 (f, %)	25, 21.9	21, 18.4	20, 17.5	71, 22.5	1.89	0.12
1 – 2 (f, %)	33, 28.9	35, 30.7	32, 28.1	117, 37.0		
2 – 3 (f, %)	35, 30.7	34, 29.8	36, 31.6	95, 30.1		
3 – 5 (f, %)	21, 18.4	24, 21.1	26, 22.8	63, 19.9		
Number of family members living with patient (f, %)					2.01	0.10
0 – 1	34, 29.8	34, 29.8	31, 27.2	95, 30.1		
2 – 3	58, 50.8	55, 48.2	59, 51.7	175, 55.4		
4 – 5	22, 19.3	25, 21.9	24, 21.1	46, 14.6		
Use of psychiatric services (f, %)					1.40	0.22
Medical consultation and treatment planning	113, 99.1	114, 100.0	113, 100.0	313, 99.0		
Nursing advice on services and brief education	70, 61.4	62, 54.4	68, 59.7	201, 63.6		
Social welfare and financial advices	70, 61.4	66, 57.9	69, 60.5	210, 66.5		
Individual/family counselling	30, 26.3	29, 25.4	30, 26.3	79, 25.0		
Dosage of medication [a] (f,%)					1.98	0.13
High	24, 21.1	21, 18.4	22, 19.3	72, 22.8		
Medium	65, 57.0	68, 59.7	69, 60.5	184, 58.2		
Low	25, 21.9	25, 21.9	23, 20.2	60, 19.0		

Baseline outcome scores across countries

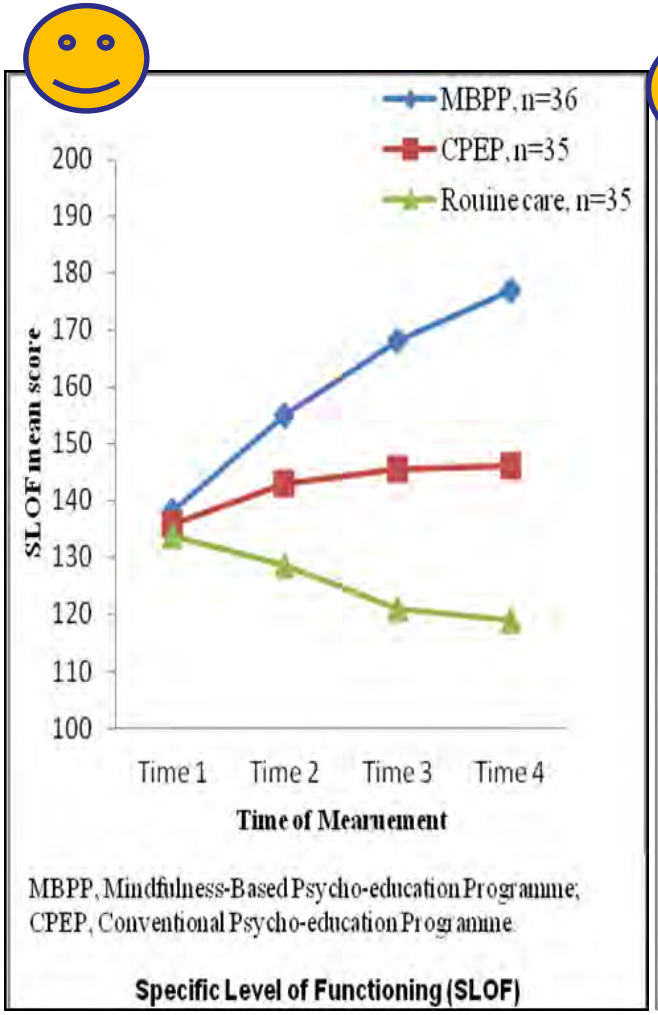
	MBBP (n=110)			PEP (n=108)			TAU (n=107)		
Instrument	Hong Kong	China	Taiwan	Hong Kong	China	Taiwan	Hong Kong	China	Taiwan
ITAQ (0 – 22)									
Time 0	9.3±3.0	9.4±3.1	9.2±3.0	9.3±3.5	9.1±3.4	9.5±3.7	9.3±4.0	9.2±3.9	9.2±4.0
Time 1	10.3±4.4	10.5±4.2	10.2±4.9	9.2±4.6	9.5±3.9	9.1±3.5	9.1±5.0	9.0±4.0	9.2±4.1
Time 3	14.1±6.0	14.4±6.9	14.0±6.5	9.9±6.0	9.8±5.1	10.0±5.9	9.1±4.0	8.9±3.7	9.2±3.9
SLOF (43-215)									
Time 0	139.0±17.1	139.1±15.8	138.9±17.0	137.5±18.2	137.8±17.4	138.2±18.1	138.7±16.2	138.6±16.5	138.9±16.2
Time 1	158.8±17.0	159.1±15.8	159.1±14.9	143.6±16.9	143.9±17.8	143.8±19.0	136.5±16.4	136.7±17.2	136.3±18.1
Time 3	178.1±19.8	179.1±19.0	179.5±17.0	149.5±20.9	149.7±21.0	150.3±22.0	130.1±18.4	130.7±18.0	131.0±19.2
PANSS (30-210)									
Time 0	80.2±10.2	80.1±10.0	80.5±11.2	80.8±8.6	81.2±8.1	81.4±8.8	80.9±9.1	81.3±9.0	81.0±8.9
Time 1	74.6±9.1	74.7±8.8	74.9±9.3	82.0±8.9	82.4±9.0	82.3±9.2	80.8±8.9	81.2±9.0	81.0±8.1
Time 3	69.7±9.6	70.0±9.7	70.3±9.8	79.2±10.0	78.6±9.8	79.3±9.5	89.3±12.0	89.1±11.8	88.7±10.7
Re-hospitalization									
Average amount									
Time 0	2.8 ±1.9	2.9±2.0	2.8±3.0	3.1±2.1	2.9±2.1	2.9±2.0	3.1±1.8	3.0±1.9	2.9±2.0
Time 1	2.4±1.9	2.6±2.0	2.5±2.4	2.9±1.8	3.0±2.2	2.8±2.0	2.8±1.5	2.6±1.9	2.8±1.9
Time 3	2.1±1.9	2.3±2.0	2.3±2.0	2.8±2.0	2.7±2.1	2.9±2.3	3.1±2.5	2.9±2.8	2.8±2.2
Duration									
Time 0	19.1±8.0	19.3±9.0	19.0±9.1	18.8±8.1	19.0±8.8	19.0±8.1	19.1±9.0	19.4±8.8	19.5±9.2
Time 1	15.4±5.5	15.8±6.0	16.0±8.2	17.6±9.0	17.8±9.0	17.9±8.0	21.7±10.0	21.7±9.8	21.0±10.0
Time 3	11.9±6.9	12.2±7.8	12.0±7.0	17.3±9.1	17.3±9.0	17.7±9.2	20.8±9.8	20.9±10.0	21.2±10.5

Main outcomes



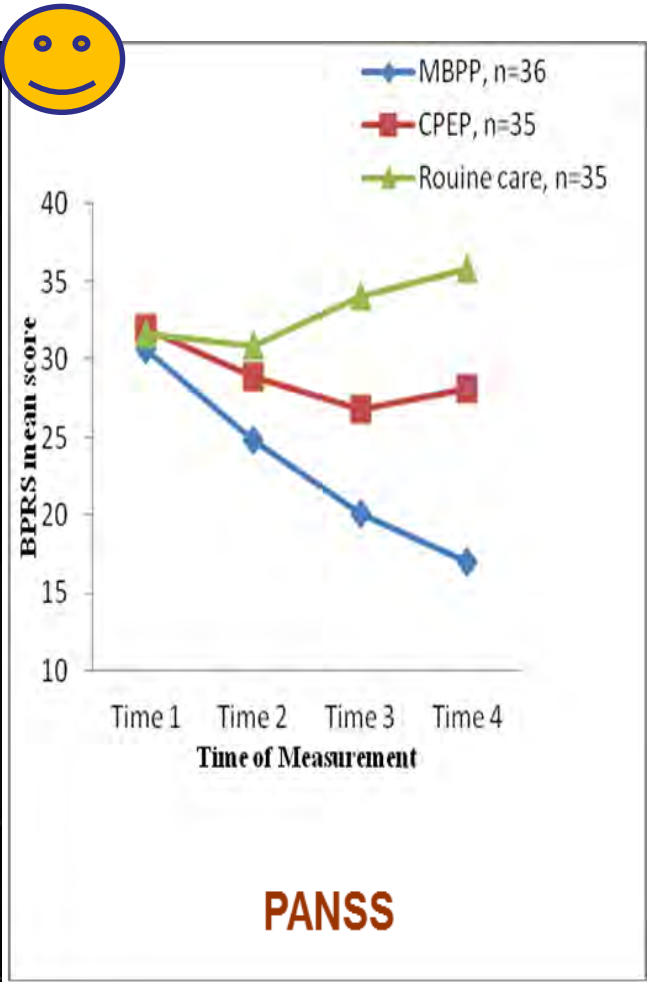
MBPP, Mindfulness-Based Psycho-education Programme;
CPEP, Conventional Psycho-education Programme.

Insight & Treatment Attitudes Questionnnaire (ITAQ)



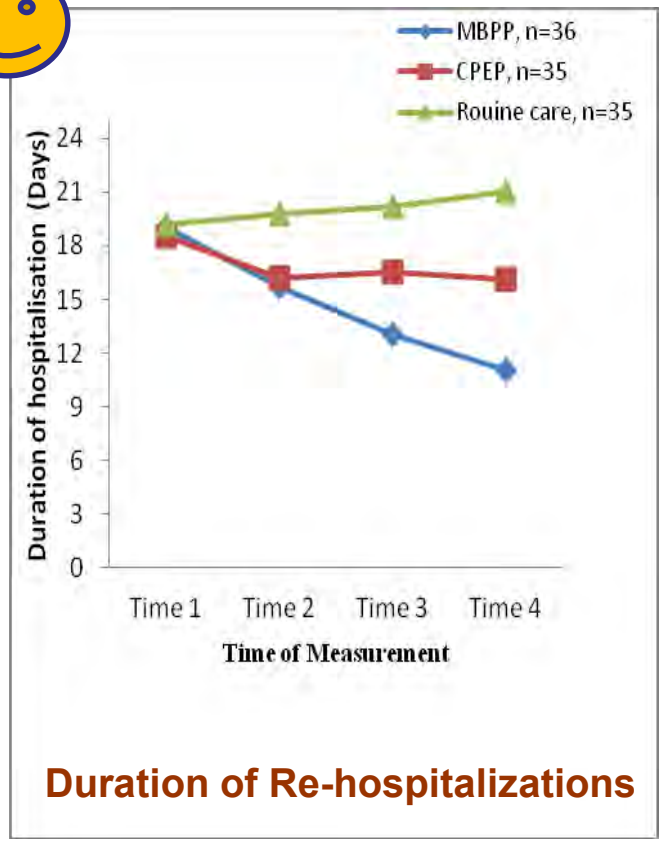
MBPP, Mindfulness-Based Psycho-education Programme;
CPEP, Conventional Psycho-education Programme.

Specific Level of Functioning (SLOF)



PANSS

Main Outcomes



Duration of Re-hospitalizations

Number of Re-hospitalizations

Discussion

- The MBBP participants reported significantly greater improvements in: psychiatric symptoms, psychosocial functioning, insight into illness/treatment, and average hospital-stay over 18 months, compared to PEP/TAU. *This model appears to be a promising approach to treatment for Chinese patients with early stage of psychosis,* similar to that tested by Chadwick et al. (2010) in the US.
- This mindfulness-based group can *enhance patients' insight into illness/ treatment and reduce re-hospitalisation;* and similar to psycho-education groups, *it improves patient symptoms and functioning.*

Discussion

- Mindfulness + bibliotherapy (more self-help) can yield improvements without any increased demand for community services or medication use (~ *cost-saving*!?).
- The MBBP can also address specific cultural needs (e.g., self-blame on having mental illness [*positive thoughts and guilty feeling*] and inter-dependence among group members) (Ma & Teasdale, 2004)
- High attendance (>8 sessions) and completion (3 in-completed) and low drop-out (3%) rates reflected its *usefulness and acceptability*

Limitations

- Only those were recruited from two psychiatric outpatient clinics in one country
- This sample may not be representative of those with *later stages of psychosis or schizophrenia*, or those with a co-morbidity of other mental health problems
- Only researchers and assessors were blinded to group allocations
- The MBBP group was time-limited to 3-4 months and less standardised than other psycho-education programmes; and no booster session was offered.

Implications & Conclusion

- Add evidence on the effectiveness of approaches to psychosocial intervention for schizophrenia in adjunct to routine outpatient care, compared to usual psychiatric care
- Address the significance of *insight*, perception, knowledge, and skills of illness management in early stages of psychosis (< 5 yrs. of illness)
- The MBBP can improve a variety of patients' psychosocial outcomes over a *long-term follow-up* (18 months)

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Thank you!

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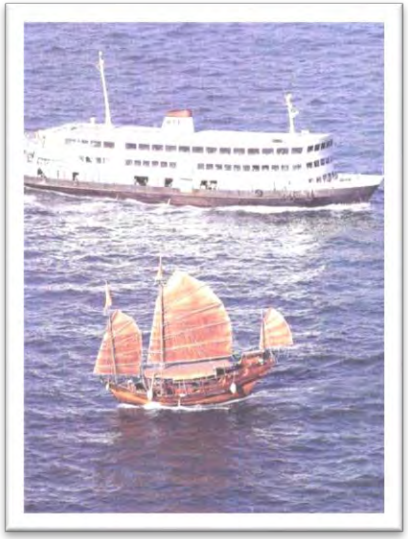
(Trial registration: http://clinicaltrials.gov, ID: NCT01667601)



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	Component	Goals or Rationale	Main topics/themes	Practice
I.	1. Orientation and engagement (2 sessions)	a. Establishment of mutual trust and respect, treatment goals and objectives, and expected roles and responsibilities in the group; and b. Understanding of the group program and information about the illness and its symptoms.	• Orientation to the MBPEG and its functions • Establishing trust and respect among group members • Achieving agreed goals and objectives • Schizophrenia and its impacts	i. Self-introduction and game activities ii. Group discussion about their roles and responsibilities in the group, and about schizophrenia and its impacts on patients and their families
	1. Focused awareness of bodily sensations, thoughts, feelings and symptoms (3 sessions)	<u>Session 1</u>: Stepping out of automatic pilot and negative thoughts <u>Rationale</u>: a. Mindfulness starts when we recognize the tendency to be on automatic pilot; b. Commitment to learning how to step out of it and being aware of each symptom and related experience; and c. Practice in purposefully drawing attention to bodily sensations and movements.	• Body scan, noticing sensations, feelings and thoughts • Dealing with barriers to focusing thoughts, emotions and events, particularly pleasurable events	i. Body scan ii. Breath and awareness and mindfulness thereof iii. Focusing on both pleasant and annoying events iv. Focused awareness of the body, thoughts and feelings (homework)
		<u>Session 2</u>: Mindfulness of the breath and staying present <u>Rationale</u>: a. Becoming familiar with the behaviour of the mind (often being busy and scattered); b. The mind is most scattered when trying to cling to something and avoid others; and c. Mindfulness offers a means to stay present by providing another place from which view things.	• Awareness of the breath offers an anchor to the present (a possibility of being more focused and gathered) • Categorising experiences vs. describing bare sensations/thoughts • Getting to know the territory of schizophrenia	i. Seeing/hearing and intentional awareness of breath, body, sounds, and thoughts ii. Three-minute breathing space (awareness of body, re-directing and expanding attention), opening (controlling breath) iii. Stretching and breathing (homework) iv. Walking and focused sensation v. Yoga (homework)