

CARE MANAGEMENT FOR LATE LIFE DEPRESSION IN URBAN CHINESE PRIMARY CARE CLINICS

Dept of Public Health Sciences
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MEDICINE *of* THE HIGHEST ORDER



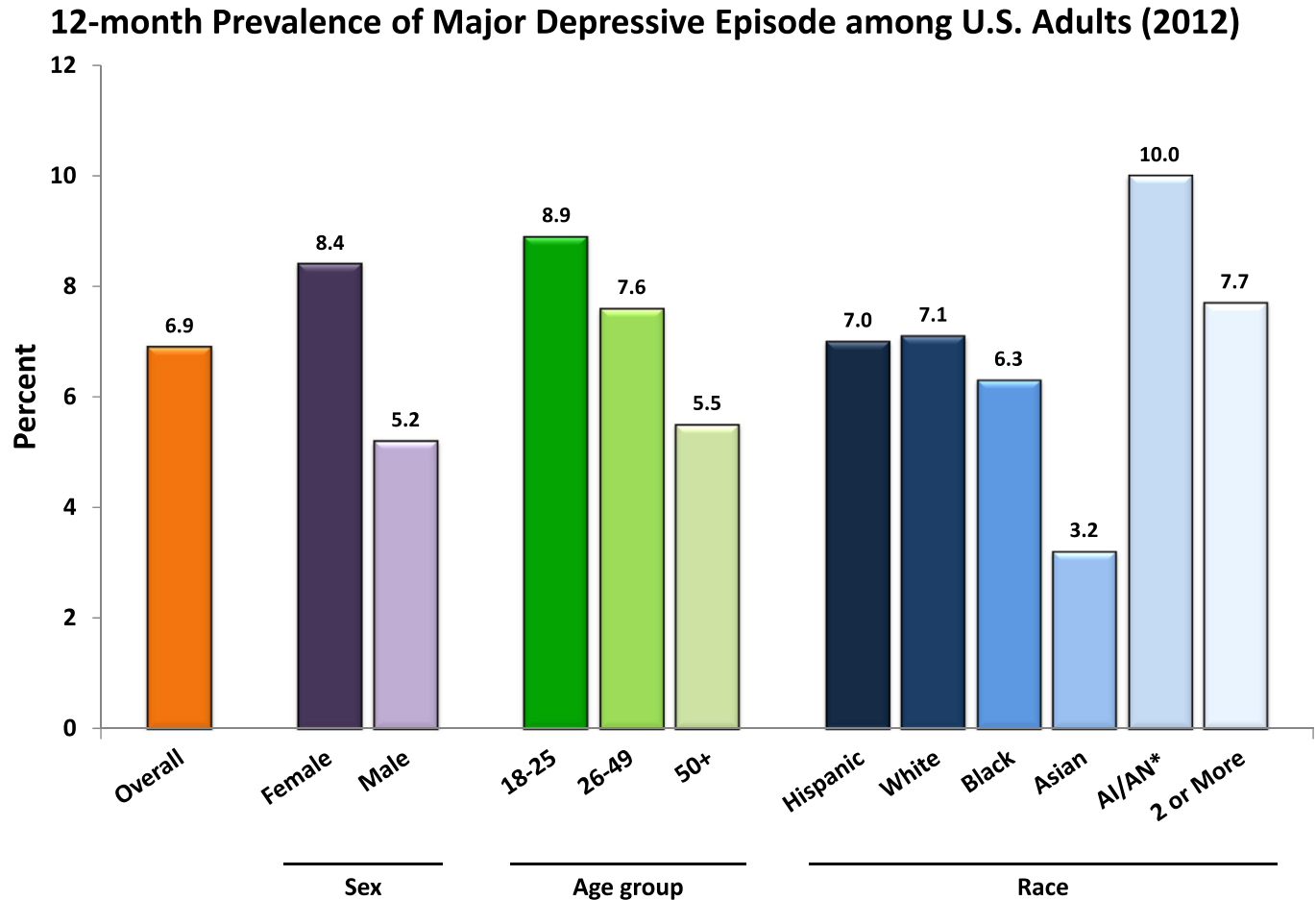
DISCLOSURES

Y. Conwell: NIH Fogarty Center D43 TW05814
China-Rochester Suicide Research
Center (ED Caine, PI)

S. Chen: NIH Fogarty Center R01 TW008699
Program for New Century Excellent
Talents in Universities of China

DEPRESSION WORLDWIDE

- Common



*AI/AN = American Indian/Alaska Native

Data courtesy of SAMHSA



DEPRESSION WORLDWIDE

- Common
- Associated with
 - Greater additive symptom burden
 - Greater functional impairment
 - Poorer adherence to tx
 - Greater utilization of care and cost
 - 50-100% higher after controlling for age, gender, severity of medical conditions
 - Increased mortality

DEPRESSION IS A CHRONIC ILLNESS

- Risk of recurrence
 - 60% after 1 episode
 - 70% after 2 episodes
 - 90% after 3 episodes
- Associated with significant functional impairment
- Often comorbid with other chronic medical illnesses complicating management
- 2nd leading cause of DALYs by 2020 (WHO, 2004)

LATE LIFE DEPRESSION IN CHINA

- Common
- Rarely recognized or treated
- Chronic disease course

Prevalence and natural course of late-life depression in China primary care:
A population based study from an urban community

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Hainan Fan ^a, Tao Jin ^e, Helen Chiu ^f

Journal of Affective Disorders 141:86-93, 2012

LATE LIFE DEPRESSION IN CHINA

Journal of Affective Disorders 141:86-93, 2012

- 1275 adults ≥ 60 years recruited from a primary care clinic in urban China
- PHQ-9 screening for all, stratified subsample of 237 administered SCID, followed for 12 months
- Prevalence of MDD = 11.3%
- Correlates of MDD = \uparrow age, female sex, \downarrow ed, \uparrow illness burden, living alone, \downarrow family support, disability.
- $<1\%$ received any treatment
- 73.2% of those with MDD at baseline remained syndromally depressed a year later
- 3% had received treatment

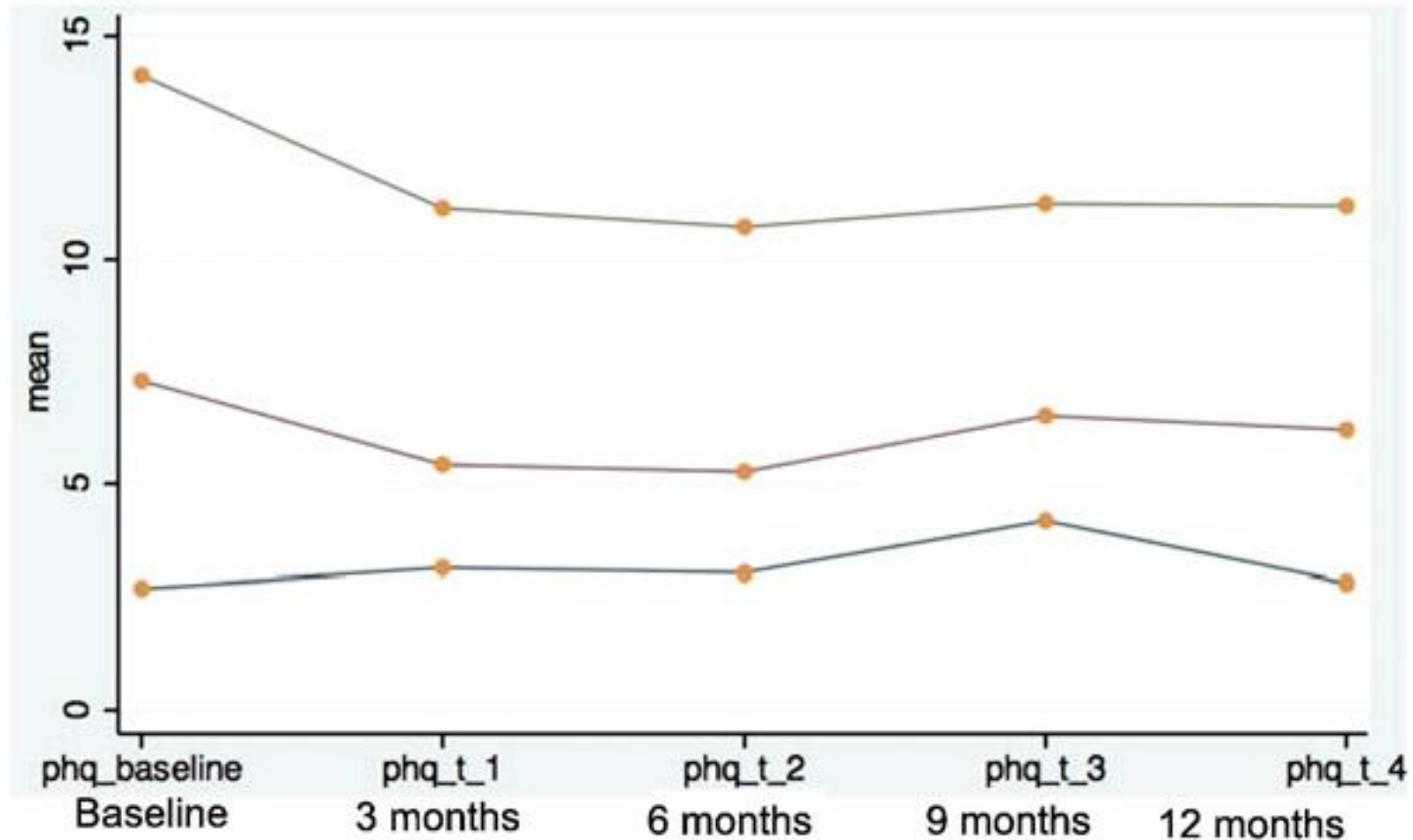
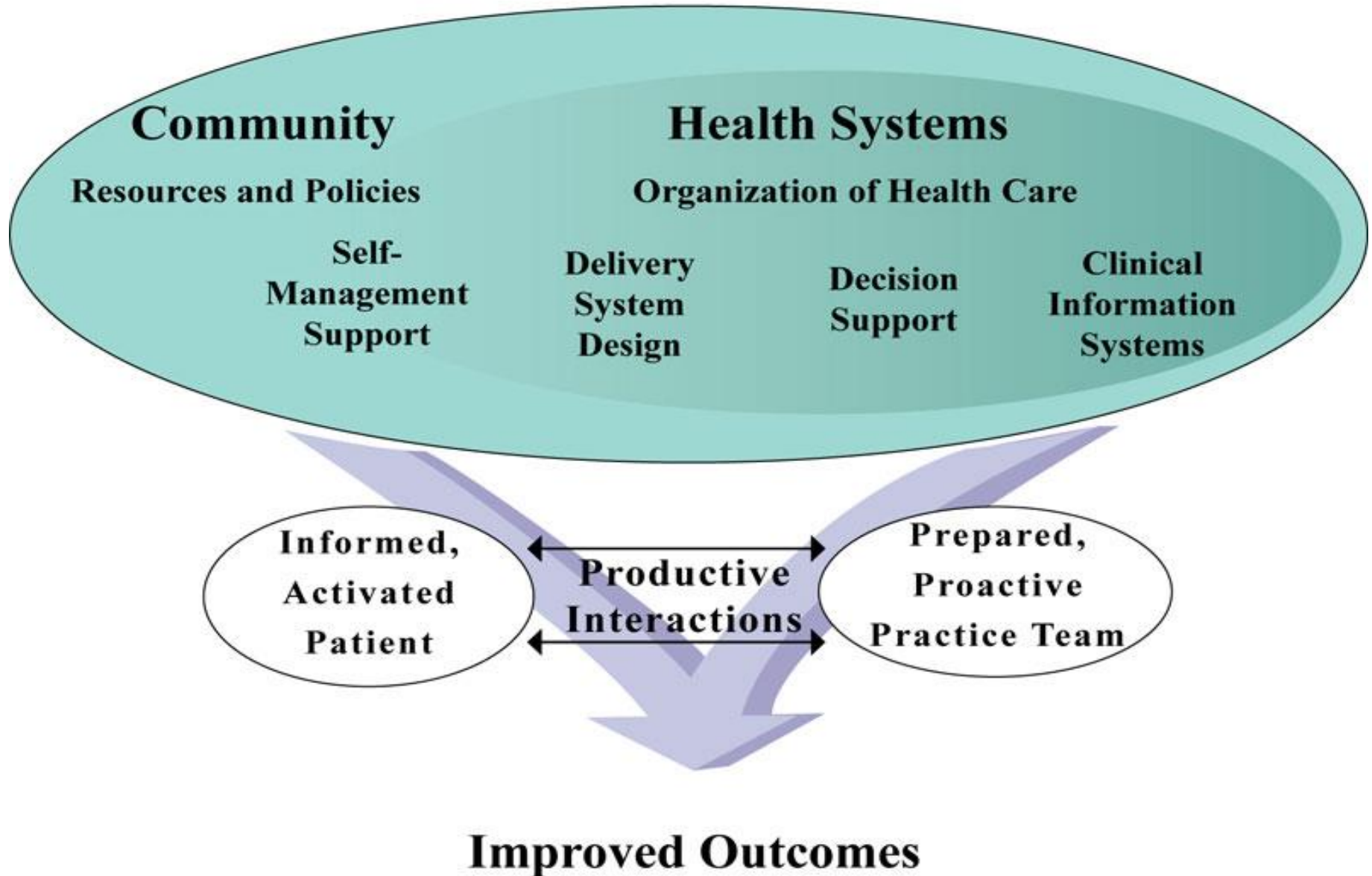


Fig. 2. Unadjusted PHQ-9 means over time as a function of initial severity grouping.

LATE LIFE DEPRESSION IN CHINA

- Barriers:
 - Lack of access to specialty MH care
 - Access to primary care is good at the community level
 - BUT, little training in depression dx and treatment for primary care providers
 - Stigma
- Opportunities for improvement
 - 2006: Central gov't emphasizes community-based chronic disease management, including depression.

The Chronic Care Model



CHRONIC DISEASE MANAGEMENT: DEPRESSION

- Screening – case detection
- Regular symptom monitoring
- Patient self-management education
- Provider education
- Evidence-based treatments to remission

- Multidisciplinary team
- Communications infrastructure
- Depression specialists (RN, PhD, SW) embedded in primary care practice
- Supervised by psychiatrist

Collaborative Care
Model

COLLABORATIVE CARE FOR DEPRESSION

Archer J, Bower P, Gilbody S, et al. Collaborative care for depression and anxiety problems. *Cochrane Database Syst Rev* 2012; **10**: CD006525.

- 79 RCTs involving 24,308 participants
- Significantly greater improvement for adults who received collaborative care model in short, medium, and long term f/u
- Better outcomes also in
 - quality of life
 - satisfaction with care
 - medication use

MOST EFFECTIVE COMPONENTS

Gilbody S, et al (2006): Archives of Internal Medicine 166:2314-2321

- Depression care manager to help PCP
 - Educate patients
 - Provide close follow-up
 - Track depression outcomes, adverse effects and treatment adherence
 - Facilitate follow-up reassessment
- Use of practice guidelines
- Consultation by a psychiatrist

DEPRESSION CARE MANAGEMENT FOR URBAN CHINESE ELDERS

- **OBJECTIVE:** To determine whether care utilizing chronic disease and collaborative care management principles results in better outcomes for older adults with major depression in urban Chinese primary care clinics.



Hangzhou City, Zhejiang Province

- Population: 8.8 million



Neighborhood Clinic

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Aims

1. To test whether DCM administered over 12 months would yield greater reductions in depressive symptoms than eCAU
2. To examine whether subject groups differed in self-assessments of
 - quality of life
 - satisfaction with their primary care providers
 - perceived stigma regarding depression treatment

Methods

- Design
 - Cluster randomized control trial design
 - Randomization at the clinic level

- Intervention sites
 - Shangcheng District neighborhood PC clinics
 - 16 of 34 clinics randomly selected
 - of which 8 were randomly assigned to deliver DCM, the remainder to eCAU

Neighborhood Clinic



Methods

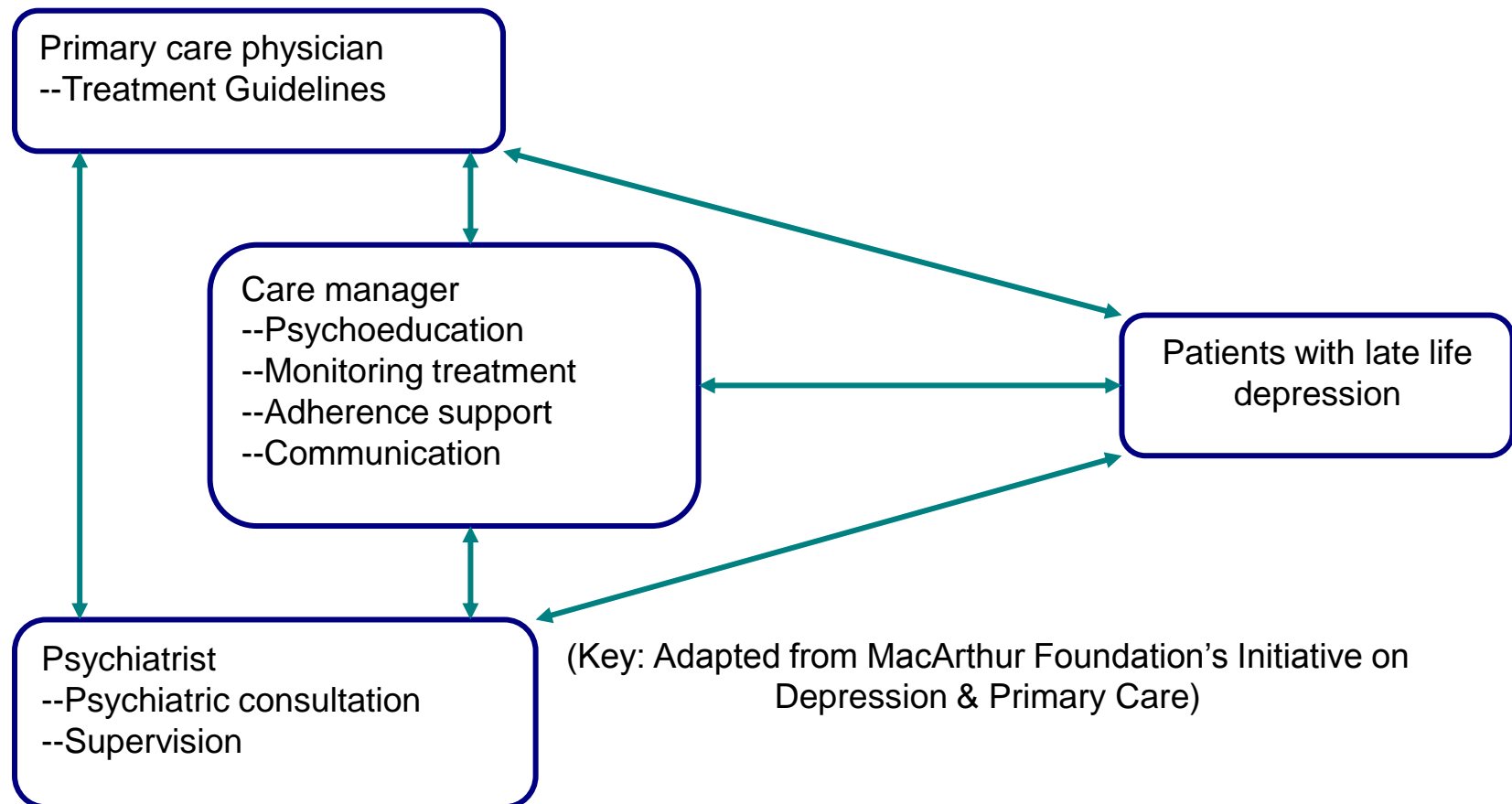
- Subjects
 - ≥ 60 years, independent living, registered residents
 - Stage 1 screen: PHQ-9 total score ≥ 10
 - Stage 2: SCID dx of major depressive episode, MMSE score > 18 , with capacity to consent, without psychosis or significant risk for suicide.
 - Consent to participate given the treatment arm to which their clinic was assigned
- Research assessments at
 - Baseline, 3-, 6-, 9-, and 12-mths.

Intervention: eCAU

- Status quo: little or no training for PCPs in MH
- Rarely diagnosed or treated
- No established transfer mechanism to MH specialists
- Provided copy of depression practice guidelines
- Informed of subject's PHQ-9 score and dx
 - Hence "enhanced" CAU --

Intervention: Depression Care Management

- Based on Three Component Model (MacArthur Foundation. Depression Management Tool Kit. 2009.)



Intervention: Depression Care Management

- Depression practice guidelines
 - Antidepressant medications: STAGED guidelines
 - China Treatment and Prevention Guidelines for Depression (CTPGD)
 - Sertraline -> augmentation with bupropion XR
 - Referral to Hangzhou MH Center if improvement <50% in 16 weeks
- Care Manager
- Psychiatric supervision and consultation

Intervention: Depression Care Management

- Care Manager
 - 1 nurse from each PCC (receive 3 yrs post high school education, no MH training)
 - 3 hrs training, monthly supervision and continuing education from study psychiatrist
 - Responsibilities:
 - Pt/family education
 - Facilitate communications with PCP
 - Support adherence
 - Outreach to pt q2 weeks, monitor PHQ-9 score

Intervention: Depression Care Management

- Psychiatric supervision and consultation
 - Monthly visit to each PCC
 - Support collaborative team fxn
 - Continuing education re: depression management
 - Consult re: care of non-responding patients or those with consultation
 - No direct pt contact

Measures

- Demographics
- Primary outcome
 - Hamilton Depression Rating Scale (HAMD)
 - Response: $\geq 50\%$ decrease in HAMD from baseline
 - Remission: $\text{HAMD} < 7$
- Secondary outcomes
 - 12-item Short Form Health Survey (SF-12)
 - 3-item Treatment Stigma Scale (TSS)
 - 8-item Client Satisfaction Questionnaire (CSQ)

Results

- 4397 pts screened, yielding 162 in eCAU and 164 in DCM.

	SCREENING	MDD/SCID	BASELINE	12-M FOLLOW-UP
DCM	2238	242	164	110
CAU	2159	226	162	104

Baseline demographic and clinical characteristics

	DCM group (n=164)	eCAU group (n=162)	T value (p value)
Age-years (mean \pm SD)	71.7 \pm 8.1	71.4 \pm 7.9	0.12 (0.95)
Gender-Female %	63.4%	63.6%	0.10 (0.97)
Education %			0.17 (0.92)
\leq 8 years	72.0%	72.3%	
$>$ 8 years	28.0%	27.7%	
Living %			0.21 (0.83)
Alone	9.1%	9.6%	
With spouse	49.4%	49.3%	
With children	41.5%	41.1%	
Marriage %			0.27 (0.75)
Married	78.7%	79.9%	
Single, separated, or divorced	21.3%	20.1%	
Physical illnesses number	4.74 \pm 2.50	4.60 \pm 2.56	0.49 (0.62)
HAMD score (mean \pm SD)	18.7 \pm 3.7	18.3 \pm 3.5	1.24 (0.31)

Depression measures, by group

	DCM group (n=164)	eCAU group (n=162)	Estimated Between Group Difference (95% CI)	Effect Size (Cohen's d or Odds ratio, 95%CI)	P value
HDRS (mean \pm SD)					
Baseline	18.7 \pm 3.7	18.3 \pm 3.5			
3 months	9.3 \pm 3.5	16.1 \pm 4.3			
6 months	8.0 \pm 3.0	14.1 \pm 4.9			
12 months	6.1 \pm 2.6	12.6 \pm 5.2	-6.5 (-7.1, -5.9)	0.8 (0.7, 0.9)	<0.001
Response rates (%) (n)					
3 months	51.2% (54/134)	4.8% (7/145)			
6 months	58.1% (71/122)	12.0% (14/117)			
12 months	66.3% (73/110)	21.2% (22/104)	32.8 (24.5, 43.9)	4.3 (3.1, 5.9)	<0.001
Remission rates (%) (n)					
3 months	19.4%(26/134)	0.7% (1/145)			
6 months	31.1% (38/122)	3.4% (4/117)			
12 months	57.4% (63/110)	8.7% (9/104)	15.3 (11.6, 20.2)	12.7 (9.5, 17)	<0.001

QoL, Stigma, Tx Satisfaction, by group

	DCM group (n=164)	eCAU group (n=162)	Estimated Between Group Difference (95% CI)	Effect Size (Cohen's d or Odds ratio, 95%CI)	P value
SF-12 (mean ± SD)					
Baseline	31.8±6.4	32.6±6.8			
12 months	49.0±8.1	38.5±8.7	9.6 (8.1, 11.1)	0.7 (0.6, 0.8)	<0.001
TSS (mean ± SD)					
Baseline	2.5±0.6	2.4±0.6			
12 months	0.6±0.5	2.0±0.8	-1.4 (-1.5, -1.2)	0.9 (0.7, 1.1)	<0.001
CSQ-8 (mean ± SD)					
Baseline	14.6±6.3	14.2±6.5			
12 months	22.3±3.2	15.2±5.8	4.8 (3.7, 5.9)	0.6 (0.5, 0.7)	<0.001

Summary

- Treatment delivery (solely medications) far more likely in DCM
 - DCM: 164/164 at entry; 82% continue at 3 mths.
 - eCAU: 7/162 at entry, 5/162 at 3 mths
- DCM had better outcomes at all time points in
 - depression sx severity, response, remission
 - satisfaction with depression care
 - quality of life
 - perceived stigma

Summary

- Differences between groups pronounced at 3 months and remained through 12 mths
- Not accounted for by ↑ referral to MH care
- No differences in rates of hospitalization (17 in DCM vs. 26 in eCAU; all medical)
- No psychiatric admissions
- No suicidal behavior or deaths in either group

Commentary

- Large effect size
 - At 12 mths, DCM subjects had remission rate 6.6 times greater than eCAU (57.4% versus 8.7%)
 - Compare Cochrane meta-analysis showing overall 12-month depression remission rate 1.3 times greater than usual care. *
 - Highest rate for any single study reporting 3.3 times greater remission. *
- *Why?*

* Archer J, Bower P, Gilbody S, et al. Collaborative care for depression and anxiety problems. The Cochrane database of systematic reviews 2012;10:CD006525.

Commentary

- Stigma as barrier to care.
- Satisfaction → adherence, response
- QoL reflecting wide range of pt/family centered care values.
- Limitations
 - Urban, wealthy
 - Not blinded
 - Traditional Chinese medicine effects not tracked
 - No option of psychosocial intervention
 - 12 mth duration

FUTURE DIRECTIONS

- Adapt to rural China
- Testing in other LMICs
- Incorporate
 - psychosocial intervention option
 - traditional medical practices
 - use of information technologies (telehealth visits)
- Training of providers in collab & team based care
- Combine with management of other chronic conditions (physical and mental)

Hangzhou -- Qiantang River



谢谢 -- THANK YOU

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