



Feasibility and Effectiveness of Telepsychiatry Consultations to Chinese Immigrants in a Nursing Home

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Mental health issues of Asian Americans

- Under-utilize mental health services¹
- Delayed help-seeking and with high attrition rates^{2,3}
- Poorer short-term treatment outcomes and lower patient satisfaction³
- Inadequate bilingual services and health insurance coverage, somatization, and stigma¹

¹Surgeon General's report, 2001, ²Kung, 2002; ³Zhang et al., 1998;



MDD is prevalent among immigrant Chinese Americans in urban primary care settings

Yeung et al., Gen Hosp Psych, 2004



Table 1. Chief complaints of depressed Chinese-Americans patients (N=29)

Chief complaints (%)	N (%)
Physical symptoms	12 (42)
Depressive neurovegetative s/s	10 (34)
Depressive psychological s/s	4 (14)
Nervousness	2 (7)
Depressed Mood	0 (0)
No complaints	1 (3.5)



Table 2. Labels used by depressed Chinese-Americans patients to describe their illness (N=29)

Name of the illness	N (%)
“Don’t know”	16 (55)
“Not an illness”	5 (17)
Medical Illnesses	5 (17)
“hypertension”	1
“cold”	2
“poor health”	1
“injured arm”	1
“Post Traumatic Stress Syndrome”	1 (3.5)
“Craziness”	2 (7)



Table 3. Methods of Health Seeking by Depressed Chinese-Americans Patients (N=29)

Methods	Frequency(%)	
General Hospital	20	(69)
Lay Help	18	(62)
Alternative Treatment by Providers	16	(55)
Spiritual Treatment	4	(14)
Alternative Treatment by Self	3	(10.5)
Mental Health Professionals	1	(3.5)



Barriers for Asian Americans in Accessing Mental Health Services

Cultural barriers

- Many Asian Americans are unfamiliar with psychiatric disorders
- Language
- Issues of use of interpreters
- Issues with translation
- Traditional roles of psychiatrists in many Asian countries
- Cultural sensitivities of mental health professionals



Psychiatric Disorders in Nursing Homes


- Mental Illnesses are prevalent in the nursing home population
- 64% of nursing home residents suffered from mental disorders¹
- Epidemiological studies based on randomly selected subjects and DSM-III criteria found prevalence rates as high as 94%²
- Dementia is the most common mental disorder, affecting 50% to 70% of all nursing home residents³

¹ *Strahan & Burns, 1991;* ² *Chanler & Chandler, 1988,* ³ *Rovner et al., 1986*



Mental Health Services to Nursing Homes Residents

- Mental health services in long-term care facilities are not optimal¹
- Only 4.5% of nursing home residents with mental disorders received any mental health treatment²
- Ratio of specialist to general practitioner care is approximately 1:1
- The findings suggest significant neglect of the mental health needs of older nursing home residents
- ¹ *Snowdon, 2007;* ² *Burns et al., 1993*



Legislation to Improve Mental Health Services to Nursing Homes Residents

- The Omnibus Budget Reconciliation Act
- Preadmission Screening and Resident Review program (PASRR)
- Compliance with PASRR screens appears problematic
- Legislation have not enhanced access to care
- 1/3 respondents in Linkins et al.'s study characterized access to mental health services as limited and of variable quality

¹ *Linkins, 2006*



Telepsychiatric services for Elderly Immigrants in Nursing Homes

- Many nursing home residents have ambulatory difficulties
- Telepsychiatric services eliminate geographical barriers
- Elimination of travel time of mental health staff
- Matching ethnic elderly immigrants with providers with relevant language and cultural background¹

¹ *Johnston, 2001*



Study Design

Local site: Massachusetts General Hospital (MGH)

Distant site: South Cove Manor Nursing Home

- In Chinatown, Boston
- Established in 1985, with 100 beds tailored to ethnic Chinese
- Staffed with bilingual and bicultural Chinese workers

Time: September 2006 to November 2007



Equipment

Videoconferencing Systems

- Polycom® VSX™ 3000 systems
- An integrated LCD screen camera with 60 degree field of view, speakers and built-in tonal speaker test microphones
- High quality video with H.264 video technology and full-duplex audio with echo cancellation
- All videoconferences were encrypted using Advanced Encryption Standard (AES)
- Transmissions were connected using IP or ISDN networking, with transmission at 384K



Subjects

- Nursing Home residents at South Cove Manor who needed psychiatric consultation
- Face-to-face interview by the PI, a bilingual & bicultural psychiatrist licensed in Massachusetts
- Obtained consent from those competent to do so
- Obtained consent from patients' guardian/next-of-kin for those not competent to consent
- Approved by the MGH Institutional Review Board



Interventions

- Follow-visits with patients using videoconferencing
- Patients with hearing impairment were accompanied by a nursing staff
- Continued telephone/video conferencing with nursing staff regard progress in patients' conditions
- Follow-up visits continued until issues for the consultation were resolved



Assessment

- **Feasibility:** determined by whether the subject showed-up and participated in one of more of videoconferencing follow-up visits
- **Clinical improvement:** rated by Clinical Global Impressions-Improvement Scale (CGI-I)¹
- **Satisfaction Rating:** patients/families and their charge nurses rated satisfaction to telepsychiatry services using a 3-point satisfaction questionnaire

¹Guy, 1976



Results

Demographics, PMHx, and Past Psychiatric History

ID	Sex	Age	PMHx	Past Psych Hx
1.	F	54	Multiple Neurological deficit, HTN	Anxiety,bipolar d/o
2.	F	79	Dementia, compression fractures	Depression
3.	F	88	Diabetes, HTN	Delirium
4.	F	71	Cerebrovascular dis, HTN, A-fib	Obsessive compulsive d/o
5.	F	77	HTN, cerebrovascular dis, UTI	Dementia
6.	M	84	HTN, Alzheimer's dis	Dementia
7.	F	70	GI bleeding, Rheumatoid arthritis	Depression
8.	F	86	HTN, copd, pneumonia, renal dis	None
9.	F	87	Cerebrovascular dis	Obsessive Compulsive trait

Results: Treatment & Outcomes

ID	Age	Sex	Reason for consultation	Diagnosis	Intervention	Outcomes	Patients'/ Families' Satisfaction	Nurses' satisfaction
1	54	F	Attention seeking, oppositional	MDD	psychological support via telemedicine f/u	mood significantly improved	highly satisfied	highly satisfied
2	79	F	depressed, ↓ self-care	MDD Dementia	↑ fluoxetine Treat constipation	Constipation & mood improved	highly satisfied	highly satisfied
3	88	F	antipsychotics use s/p delirium	Delirium	d/c antipsychotic med	Consciousness cleared up	highly satisfied	highly satisfied
4	71	F	Refused to go to bed at night	Dementia & adjustment problems	↑ safety measures, ↑ prooxetine	Returned to bed for sleep	highly satisfied	highly satisfied
5	77	F	Poor feeding, d/d dementia & MDD	Dementia, r/o MDD	Treatment trial with fluoxetine	Fluoxetine d/c due to drowsiness	satisfied	highly satisfied
6	84	M	assess suicide risk	Dementia	Assessed suicide risks	Nursing staff felt reassured	highly satisfied	highly satisfied
7	70	F	agitation, loud, behavioral disinhibition	Bipolar disorder	Started on valproic acid & titrate up	Behavioral s/s much improved	highly satisfied	highly satisfied
8	85	F	agitation, paranoid s/s	dementia	Started on risperidone	Agitation improved	satisfied	satisfied
9	89	F	Physically aggressive	Adjustment d/o	Adjustment d/o, r/o dementia	Behavioral management	highly satisfied	highly satisfied



Discussion (1)

- It is feasible to provide telepsychiatric services to most elderly Chinese in a nursing home despite many of them suffer from dementia, psychotic symptoms, depression and/or hearing impairment
- This is a population with multiple comorbid medical and psychiatric disorders
- Mood symptoms and behavioral problems were frequently the reasons for psychiatric consultations. Dementia usually played a significant role



Discussion (2)

- The consultations were based on a multidisciplinary model with involvement of the family, nursing staff, and primary care physicians
- Interventions included psychological support, behavioral management, and psychopharmacological tx
- Most subjects showed improvement from telepsychiatric consultations
- Patients, their family members and nursing staff showed high levels of satisfactions to telepsychiatric consultations



Discussion (3)

- The presence of telemedicine-based liason psychiatrists as a regular member of the treatment team, to monitor patients' psychological and behavioral symptoms and educate nursing staff on effective interventions may prevent escalations of aggressive behaviors which could lead to injuries among nursing home residents
- A network of ethnospecific mental health professionals can be connected via telemedicine to increase access of mental health services to ethnic immigrants in nursing home to alleviate treatment disparities in these populations