Telepsychiatry Services for Korean Immigrants

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Abstract

Asian Americans often face cultural and language barriers when obtaining mental health treatment. With the small number of Asian mental health providers, it is difficult to ensure the linguistic and ethnic matching of providers and patients. Telepsychiatry holds great promise to address the unique needs of Asian Americans. We developed a project to establish telepsychiatry services that connect Korean mental health patients in Georgia with a linguistically and culturally competent psychiatrist in California and assessed the level of acceptability of psychiatric treatment via real-time teleconferencing among these patients. Upon the completion of the program, 16 patients (5 men, 11 women) completed a questionnaire that measured their acceptability of the telepsychiatry service. The findings indicate a high level of acceptance of the program among Korean patients. The quantitative and qualitative data show that they especially appreciated the cultural sensitivity of the consultation and the comfortable interaction with the provider. However, challenges such as technical issues of teleconferencing may negatively affect the quality of the clinical interaction. Our study expands the knowledge base regarding the acceptability of such services to a population that experiences disparities in mental health care. Future research should extend telepsychiatry services to other Asian population groups that experience lower access to mental health services.

Key words: telemedicine, telepsychiatry, e-health

Introduction

Although the prevalence rate of diagnosable mental illness among Asian Americans is similar to that of the white population, Asian Americans are often less likely to seek treatment.¹ Evidence has demonstrated the cultural and

language barriers to healthcare access among people with Asian origins.² Asian Americans are characterized with diverse ethnic groups with unique cultural values and traditions. It is estimated that approximately 76.9% of Asian Americans speak a language other than English in their home and that 35.5% have limited English proficiency.³ Compared with English-proficient individuals, people with limited English proficiency tend to use fewer mental health services, perceive less of a need for services, and have longer durations without mental health treatment.⁴ In addition, many Asian Americans view emotional distress as a sign of weakness, resulting from a lack of discipline or will power. Shame and stigma also contribute to their lower utilization of mental health services.⁵ Thus, Asian Americans tend to delay seeking treatment until symptoms reach crisis levels.

Another significant barrier to getting timely treatment is the lack of access to mental health professionals who are able to provide linguistically and culturally appropriate services. Interpreters may be unavailable in certain language groups, and few interpreters have appropriate mental health training.⁶ Patients generally prefer services from ethnospecific psychiatrists who can communicate with them in their native language.⁷ Yet, with the small number of Asian mental health providers, it is difficult to ensure the linguistic and ethnic matching of providers and patients.

Given the unique challenges of mental health treatment for Asian Americans, it is important to establish ethnically specific services to provide bicultural and bilingual personnel and culturally relevant mental health treatment. When such services are available, Asian Americans show increased utilization of mental health services, decreased premature termination of care, and higher satisfaction with the care.^{8,9} However, the limited resources of local communities are often unable to meet the mental health needs of diverse Asian communities, which are characterized by a wide range of language and cultural subgroups. A potential solution to this problem is to develop a service delivery system that can tap into the resources of ethnically synchronous communities that may be geographically distant.

Telepsychiatry holds great promise to address the unique needs of Asian Americans. It is a form of live interactive videoconferencing that offers psychiatric services to patients in remote locations. Telepsychiatry has been increasingly used to deliver patient care, consultation, and education to inaccessible or underserved populations. Previous evaluation of feasibility of telepsychiatry showed that compared with patients who were seen face-to-face, patients seen via videoconference showed similar level of acceptability and satisfaction.¹⁰ In particular, telepsychiatry enhances the ability to create a bridge between ethnic minority communities and formal care

providers and to connect Asian patients with mental health professionals with the appropriate language and cultural background, regardless of location. Some small-scale studies have confirmed the advantage of telepsychiatry for ethnic minorities.^{11,12} For example, Yeung et al.¹² described their experience of telepsychiatry consultations with nine monolingual Chinese immigrants in a nursing home and reported that it was acceptable for both patients and nurses.

To date, findings on the use of telepsychiatry to overcome cultural and linguistic barriers are very limited and preliminary. In our pilot project, we used advanced telemedicine technology to connect the resource of bilingual and bicultural mental health professionals in California with a small population of Korean immigrants in Atlanta, GA. We intended to examine the extent to which the Korean patients accept the telepsychiatry services.

Subjects and Methods

PARTICIPANTS

All patients were recruited through the Center for Pan Asian Community Services (CPACS), a private, non-profit organization in Atlanta that delivers basic healthcare, health education and promotion, and counseling services targeting Asian immigrants and refugee communities. Patients were recruited through flyers displayed in CPACS's front office and advertisements in Atlanta-based Korean newspapers. People who expressed interests in the study were screened using the Kessler-6 scale, which assesses severity of levels of psychological distress. The scale consists of six questions, "During the past 30 days, how often did you feel...(1) So sad that nothing could cheer you up; (2) Nervous; (3) Restless or fidgety; (4) Hopeless; (5) That everything was an effort; and (6) Worthless." Frequency responses range from (1) all of the time, (2) most of the time, (3) some of the time, (4) a little of the time, and (5) none of the time. Those with a score ranging from 13 to 24 were coded as seriously psychologically distressed. Qualified individuals should have a score 13 or higher in the Kessler-6 scale and meet the following criteria: ages of 18–65 years old, primarily speaking the Korean language, and not having received any mental health treatment in the past year. Exclusion criteria were psychotic disorders, mental retardation, significant medical conditions compromising the ability to participate, and lack of ability to provide informed consent. Eligible patients were fully informed about any risks and benefits associated with their participation. Each patient received emergency contact information as a reference. All screening tools and written documents were presented in the Korean language.

PROCEDURE

Implementation of this study was conducted collaboratively with CPACS and Asian Community Mental Health Services (ACMHS) in Oakland, CA. CPACS served as the patient site, where patients were recruited and located. A culturally and linguistically competent facilitator, employed by CPACS, was trained in areas of patient recruitment, service access support, follow-up visit arrangement, and research ethics issues such as data collection and confidentiality.

ACMHS was the provider site, where a culturally and linguistically competent Korean-speaking psychiatrist provided treatment services via teleconferencing equipment. The psychiatrist acquired a license in Georgia before the telepsychiatry services started. The whole process of telepsychiatry services followed guidelines of the American Telemedicine Association.

Remote treatment occurred through the use of personal computer-based, high-resolution videoconferencing equipment (Tandberg Movi[®]) obtained from the Georgia Partnership for Telemedicine. With a laptop computer and a quality high-speed Internet connection, Movi provides high-quality secure videoconferencing with mobility. The videoconferencing equipment was installed at the patient site of CPACS and the psychiatrist's office at ACMHS. At each session, the facilitator first set up the equipment to make sure the connection between the patient site and provider site was established and then left the treatment room. For each patient, the telepsychiatrist conducted assessment and consultation via the videoconferencing equipment, during which the facilitator remained available in the waiting room in case patients need any support or assistance. When the telepsychiatry session ended, the facilitator reentered the room and received the treatment plan and instructions from the telepsychiatrist on medication prescribed, scheduling the next appointment, and any additional recommended referrals or resources.

The telepsychiatry sessions lasted for 20 weeks and took place one afternoon each week. All patients received an initial diagnostic assessment by the telepsychiatrist that lasted 45–90 min in duration. Following the initial assessment, the telepsychiatrist provided treatment recommendations to the patient and the facilitator. Additional ongoing follow-up sessions were recommended by the telepsychiatrist at her clinical discretion. Each patient received up to three additional sessions, consisting of medication management and supportive psychotherapy, each of which lasted for 30 min. A detailed telepsychiatry project emergency management protocol was developed to address any emergency services for both on-site and off-site crisis. Patients who completed the project and required additional ongoing treatment were referred to local, Korean-speaking primary care providers and community mental health providers with access to language line/interpreter services. Upon the completion of the project, each patient completed a questionnaire that measured his or her perceptions of different aspects of the telepsychiatry process. All of the study procedures were reviewed and approved by the Institutional Review Board.

MEASURES

Demographics. A 1-page survey collected data on participants' demographic information, including age, gender, income, marital status, length of time in the United States, and health status.

Feasibility. The feasibility of telepsychiatry was assessed with both quantitative data and qualitative data. The telepsychiatry process measure developed by the University of Colorado at Denver and

Health Science Center was used to assess the domains of usability of the technology, patient-provider interaction, cultural competence of the interview, and patient satisfaction.¹³ The measure includes 26 items, with each item using a 5-point Likert scale ranging from a low (negative) score of 1 to a high (positive) score of 5. This measure has been used in a previous study to measure the acceptability of telepsychiatry to an American Indian population.¹³

In addition to the telepsychiatry process measure, patients also answered a series of open-ended questions that asked about their feelings toward the interview process and the teleconferencing equipment. Patients responded to these questions in Korean. Their responses were later translated into English.

DATA ANALYSES

All data analyses were conducted with SPSS version 18 (SPSS, Inc., Chicago, IL). Descriptive statistics for demographics were calculated for the patients who completed the program. The mean and standard deviation of ratings of usability, patient-provider interaction, cultural competence, and satisfaction were calculated. These data were presented without statistical comparisons as no control groups were involved. To further compare the different aspects of telepsychiatry process, we ran principal components analysis for the questions under each domain and conducted reliability analyses among the items with a factor loading higher than 0.60. A repeated-measures analysis of variance was conducted to compare the domains of the telepsychiatry process in order to detect whether the domains received similar level of acceptance. For the qualitative analysis, the responses were reviewed to identify themes and patterns in the text. Under each theme, responses were further coded into several categories.

Results

The study recruited 19 patients who met study criteria. Three patients dropped out of the study after their initial treatment visit because of personal reasons. In total, 16 patients completed the program and were included in the analyses for both quantitative and qualitative data. *Table 1* presents demographic information for the participants who completed the study. The majority of patients were young, female, married, and college educated. Most participants had lived in the United States for over 10 years and described their physical health status as poor to fair. The majority of patients were given preliminary diagnoses of depressive disorders (major depressive disorder, depressive disorder not otherwise specified), anxiety disorders (posttraumatic stress disorder, anxiety disorder not otherwise specified), and adjustment disorders (adjustment disorder with depressed mood, adjustment disorder with mixed anxiety and depression).

QUANTITATIVE DATA RESULTS

The means and standard deviations of the score of each telepsychiatry process measure question are presented in *Table 2*. Except for two questions on cultural competence ("To what extent were you

Table 1. Patient Demographic Characteristics	
VARIABLE	PATIENTS (N= 16)
Age (years)	45.1 (8.2)
Male	31.3%
Education	
Less than high school	6.3%
High school but less than college degree	25.0%
College degree	68.8%
Household income	
Less than \$25,000	43.9%
\$25,000 or more	49.9%
Time in the United States	
Less than 5 years	6.3%
5–10 years	18.8%
More than 10 years	75.0%
Marital status	
Currently married	62.5%
Currently not married	37.5%
Health status	
Poor–fair	74.9%
Good–very good	25.1%
Data are mean (standard deviation) values or percentages.	

asked how race or ethnicity might affect the interview?" and "To what extent did you feel that your race or ethnicity affected how you were treated during the interview?"), the ratings of acceptability of the telepsychiatry assessed by the process measure were high, ranging from 3.19 to 4.69.

Except for patient satisfaction, each of the other three domains represented a specific aspect of the telepsychiatry experience. To further compare these three aspects, we then ran principal components analysis for the questions under each domain and conducted a reliability analysis among the items with a factor loading higher than 0.60. All seven items under the domain of usability had an acceptable factor loading, and they formed the subscale of usability ($\alpha=0.89$). Similarly, all 10 items under the domain of patient-provider interaction were grouped under one factor ($\alpha=0.93$). Two items under the domain of cultural competence were excluded because of the low factor loading. The remaining six items formed the subscale of cultural competence ($\alpha=0.89$).

We further examined whether there were significant differences in ratings of the three domains. A repeated-measures analysis of variance revealed a main effect of domain ($F_{2,30}=35.16$, $p<0.001$). A *post hoc* test showed that the lowest score was in usability of

Table 2. Telepsychiatry Process Measure Domains and Questions

DOMAIN	PATIENT (N= 16) SCORE
Usability	
To what extent do you feel the doctor was able to hear you over the video system?	3.75 (0.8)
To what extent were you able to hear the doctor over the video system?	3.81 (0.9)
To what extent were you able to see the doctor over the video system?	3.75 (0.9)
Overall I thought the picture quality of the video system was...	3.63 (0.7)
Before this video interview, how did you feel about using the video system?	3.75 (0.9)
How did using the video system make you feel during this interview?	3.56 (1.2)
Was the doctor's image on the television an acceptable size and distance for you?	3.88 (1.0)
Patient-provider interaction	
How comfortable did you feel during this video interview?	3.88 (1.1)
How did the doctor treat you during this interview?	4.63 (0.6)
How sensitive was the doctor to your feelings?	4.50 (0.6)
How carefully did the doctor listen to what you had to say?	4.44 (0.7)
To what extent did you understand the doctor's questions?	4.44 (0.5)
To what extent did you feel you could trust the doctor?	4.75 (0.4)
How comfortable were you with the direct questions that the doctor asked you?	4.38 (0.7)
How comfortable were you with the amount of eye contact you had with the doctor?	4.38 (0.8)
How comfortable were you with the tone of voice of the doctor?	4.75 (0.4)
How comfortable were you with the speed at which the doctor spoke?	4.69 (0.5)
Cultural competence	
To what extent were you asked how race or ethnicity might affect the interview? ^a	1.44 (1.0)
To what extent did you feel that your race or ethnicity affected how you were treated during the interview? ^a	1.44 (1.1)
In what manner was your culture addressed by the questions that you were asked?	4.56(0.7)
How respectful was the interview of your cultural ways?	4.63 (0.6)
How were the questions about your present experience asked?	4.63 (0.5)
How were the questions about your past experiences asked?	4.56 (0.5)
How were the questions about your future expectations asked?	4.56 (0.5)
To what extent did the doctor seem to know about your culture?	4.38 (0.7)
Satisfaction	
Overall, how satisfied were you with this (video) interview?	4.50 (0.5)
To what extent did this video interview affect your future willingness to use a video system for health care?	4.31 (0.6)
To what extent did this video experience affect your preference to use a video system for healthcare in the future? ^a	3.19 (1.1)

Data are mean (standard deviation) values.

^aThe measures were excluded from the reliability analysis because of low factor loading in principal components analysis.

technology (Mean = 3.66), followed by patient-provider interaction (Mean = 4.48) and cultural competency (Mean = 4.55).

QUALITATIVE DATA RESULTS

Three main themes were identified from responses to open-ended questions: things liked about the video interview, things disliked about the video interview, and suggestions for any future telepsychiatry program.

Things liked about the video interview. The responses related to things that patients liked about the interview process were coded into the following four categories:

1. *Convenience and easy access.* Many comments on what patients liked about the telepsychiatry process focused on the convenience of getting treatment. Five patients mentioned that the program allowed them to see the provider without having to travel a long distance. For example, a patient stated, "We are not confined in time and space to have a treatment." The ease of use of the teleconferencing equipment was mentioned by several patients. The presence of a facilitator at the site was also noted to help ensure a smooth treatment process.
2. *Security and privacy.* Telepsychiatry was described as a safe way to receive treatment. Patients felt more comfortable in talking about private issues via video equipment. A patient emphasized, "I felt secure during the treatment." Another patient noted, "The telepsychiatry was a more secure way of treatment to protect client's privacy."
3. *Language/cultural factors.* Several patients reported that they liked the video interview because of language/culture-related reasons. Being able to use Korean language in the interview seemed to be an advantage. As one patient noted, "I felt comfortable and good when I had treatment in Korean language via the teleconference devices." Comments also reflected the

benefit of patient–doctor race concordance. A patient stated, “I could discuss about my problems very comfortably because the doctor and I are the same ethnicity.”

4. *Other personal factors of the telepsychiatrist.* A few patients mentioned that they liked the provider, the attitude of the provider, and the positive feeling they had when interacting with her.

Things disliked about the video interview. What patients disliked about the process were categorized as follows:

1. *Technical factors of the device.* Most negative comments of the process were associated with use of the equipment, focusing on occasional unsmooth video and audio functioning, disconnection from the Internet, and the positioning of the equipment. For instance, one patient noted, “Teleconference equipment did not seem to be good enough at times. The height of the table and the chair was not good fit for a patient to sit and talk for a long time. The overall experience was not easy. If I had been more computer savvy, it should have been better experience. Also it was a little difficult to focus, because of the delay of audio. It was not properly synchronized.”
2. *Difficulties in establishing a rapport with the psychiatrist.* Some participants mentioned difficulties in establishing trust or a close bond with the psychiatrist. One patient complained, “I cannot fully trust the doctor because she was not in the same space in front of me.” Another patient stated, “The bond between the doctor and the patient is less strong because of the usage of the teleconferencing devices.”

Suggestions for any future telepsychiatry program. Only a few patients provided suggestions for a future telepsychiatry program. One patient preferred to have more direct interaction with the provider outside the treatment sessions. Two patients suggested a longer program that would allow patients to get more treatment. One patient expressed a desire to receive telepsychiatry services at home.

Discussion

This pilot study provided evidence on the feasibility of using telepsychiatry to provide culturally competent services for Korean immigrants. The general framework incorporates the inherent resource of an ethnically relevant community mental health center and innovative interactive technologies in the delivery of patient-centered and culturally competent mental health services. The findings indicate that although there is a high level of acceptance of the program among Korean patients, multiple challenges need to be further addressed to improve the treatment process.

Overall, patients felt comfortable during the video interview and were satisfied with the ease of using the teleconferencing equipment. Our telepsychiatry program allowed patients to see a psychiatrist of the same ethnicity who provided culturally relevant treatment. Patient–physician race and ethnic concordance is associated with

higher patient satisfaction and better healthcare processes.¹³ As people from different ethnic groups tend to express distress in unique and varied manners,¹ it may be particularly important to provide linguistically and culturally competent mental health services for ethnic minorities. Patients in our study were highly satisfied with the telepsychiatry-based treatment. The quantitative and qualitative data showed that they especially appreciated the cultural sensitivity of the consultation and the comfortable interaction with the provider. Articulating feelings, emotional discomfort, or social stressors is best accomplished in the patients' primary language, regardless of English proficiency.

Patients' evaluations of the telepsychiatry experience and the video equipment suggest the importance of building adequate infrastructure so that technical aspects of teleconferencing are not a distraction. In our pilot study, even though we had tested the equipment multiple times before the program started, unexpected technical problems, such as a loss of sound, blurring of video, and disconnection of the Internet, still occurred occasionally. These technical issues can negatively influence the consultation process and patient perception of the quality of care. Future projects should make efforts to avoid technical problems by selecting the most technologically advanced equipment available and giving particular attention to Internet connection/speed at both upstream and downstream sites, choice of room, and positioning of equipment. In addition, technical support needs to be available all through the period of the consultation. In our program, the facilitator's ongoing presence played a critical role in setting up the equipment and solving technical problems, which ensured the quality of the clinical interaction.

This study highlights the benefits and strengths of community-based participatory research. Our study's partnership with CPACS shows the importance of involving local ethnic community centers in preparing and designing the telepsychiatry program, in identifying unique mental health problems of Asian residents, and in providing a warm, welcoming environment, social support, and direct services such as facilitation, translation, and transportation for the clients. The psychiatrist from ACMHS shared the patients' ethnic background and was familiar with the culture. Her credential and expertise were critical for the success of this project. She also provided us with valuable feedback on the video interview. She emphasized that she felt completely comfortable during the video interview. It did not differ significantly from the office interviews. For most patients, it was their first psychiatric evaluation, and they had to overcome the stigma of coming to see a psychiatrist. Therefore, she spent a fairly long time with each patient during the first assessment to be thorough as well as to establish rapport.

The importance of timely, effective mental health services is increasingly recognized, and language and cultural barriers have been formidable obstacles to achieving this objective. Research on the use of telepsychiatry for delivering culturally relevant mental healthcare for ethnic and racial minorities is still in its infancy. Our study has helped to expand the knowledge base regarding the acceptability of such services to a population that experiences disparities in mental

healthcare. Future research should work to extend telepsychiatry services to other populations that experience lower access to mental health services.

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Disclosure Statement

No competing financial interests exist.

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