

NARBHA 10-Year Telemedicine Client Satisfaction Survey Results: Overall results

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Background

Northern Arizona Regional Behavioral Health Authority (NARBHA) is a nonprofit agency that contracts with the state of Arizona to provide mental health services to low-income and seriously mentally ill people living in the northern half of the state.

Northern Arizona is 62,000 square miles and mainly rural; small, isolated towns make it difficult to recruit and retain psychiatrists to live in these areas. To provide better access to psychiatric services for its rural members, NARBHA launched its videoconferencing network in 1996 with a grant from the state of Arizona, creating a private network of point-to-point telecommunications lines.

Psychiatrist Sara Gibson, M.D., began seeing patients at Little Colorado Behavioral Health Centers (LCBHC, locations in Springerville and St. Johns in Apache County) via video from her location at NARBHA headquarters in Flagstaff in November 1996. St. Johns is 150 miles from Flagstaff; Springerville is 180 miles away.

Dr. Gibson, who replaced a local psychiatrist who had retired, was the sole psychiatrist for Apache County until December 2002, when Ellen Morse, FNP, also began seeing LCBHC patients via video from NARBHA headquarters in Flagstaff. Currently, Ms. Morse sees patients 3 days per week and Dr. Gibson sees patients 2 days per week. Neither practitioner sees LCBHC patients in person. All outpatient psychiatric services are provided via video using Polycom equipment.

The LCBHC telemedicine patient population demographics are as follows:

Children - 33%

Substance Abuse - 2%

General Mental Health - 31%

Serious Mental Illness - 34%

Upon presentation to the clinic, a patient sees an intake worker and is assigned to a therapist or case manager on site. If referred for psychiatric evaluation or medication management, the patient is oriented to the telemedicine system and signs an Informed Consent to Participate in Telemedicine Services form, which becomes a part of their medical record. Patients have the option to refuse telemedicine services, in which case they can travel about an hour to Show Low to receive in-person services.

Services provided via video to LCBHC patients are:

- **Psychiatric evaluations:** A complete historical and diagnostic initial evaluation by a psychiatrist.
- **Medication management:** The psychiatrist evaluates the patient regarding medication effectiveness, patient symptoms, medical problems, medication side effects, etc., and determines if the patient's medication(s) need to be adjusted, supplemented, changed, or stopped.
- **Inpatient staffings:** LCBHC patients requiring inpatient or residential treatment are generally sent to an acute care inpatient facility in Show Low, approximately 60 miles from St. Johns and Springerville. This facility is part of the NARBHA telemedicine network, so that all parties (including the patient's outpatient psychiatrist in one location, the case manager and/or therapist in another location, and the inpatient/residential staff in a third location) can meet for coordination of care, treatment and discharge planning. The patient also participates in their care via video from the inpatient/residential site.
- **Emergency and commitment evaluations:** The ability to provide psychiatric and civil commitment evaluations using telemedicine has improved care. Without it, patients have to be transported by ambulance or police to a distant location with a psychiatrist. Telemedicine also alleviates the need for the psychiatrist to cancel a day of scheduled patients to travel to a remote site on short notice.

Patient appointments range from brief, 20-minute medication management appointments to 2-hour initial psychiatric evaluations. All LCBHC telemedicine patients have a clinician (case manager, RN, or therapist) in the room with them during telemedicine sessions; this person participates in the evaluation and management as a member of the treatment team. Some of the client satisfaction survey questions are about patients' reaction to this practice.

In March 2004, Ms. Morse moved out of state and began dialing into the NARBHA network with an ISDN 384K connection. Dr. Gibson's connections are at 512K. The NARBHA network is now IP-based (as of July 2005; still using the private, point-to-point T1 lines rather than the public internet), with a video bridge capable of connecting both IP and ISDN video calls. All doctor-patient meetings are connected through the NARBHA bridge so that central telemedicine staff can monitor the quality of the connections and quickly respond to technical issues.

During technical problems (power outages, downed T1 lines, network component failures), the psychiatric providers talk to their patients via land-line telephones.

LCBHC client satisfaction survey

NARBHA created an optional, one-page survey that asked age, gender, number of years receiving telemedicine services and number of telemedicine sessions attended, then asked the questions analyzed below. The survey also invited patient comments.

LCBHC staff handed out the surveys to all telemedicine patients beginning December 1, 2006 and ending March 30, 2007. It was estimated that handing out surveys over a four-month period would cover approximately 90% of telemedicine patients. The surveys were handed out to 230 patients; 76 forms were returned, a 33.0% response rate. Patients were asked not to fill out the forms more than once.

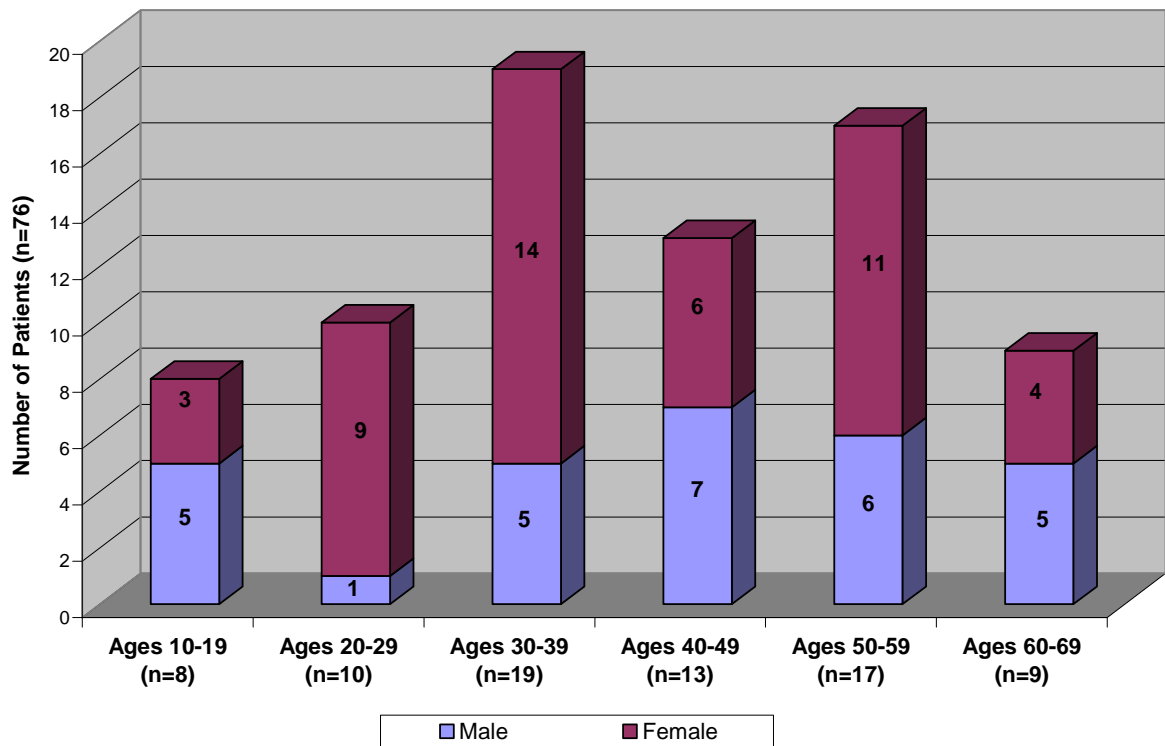
SURVEY RESPONDENTS' CHARACTERISTICS

The p-value in the following statements indicates how significant the differences are among the values discussed. If $p > 0.05$ there is no statistical difference. If $p < 0.05$ there is a difference. The smaller the p-value number, the more significant the difference.

Respondents' characteristics are as follows:

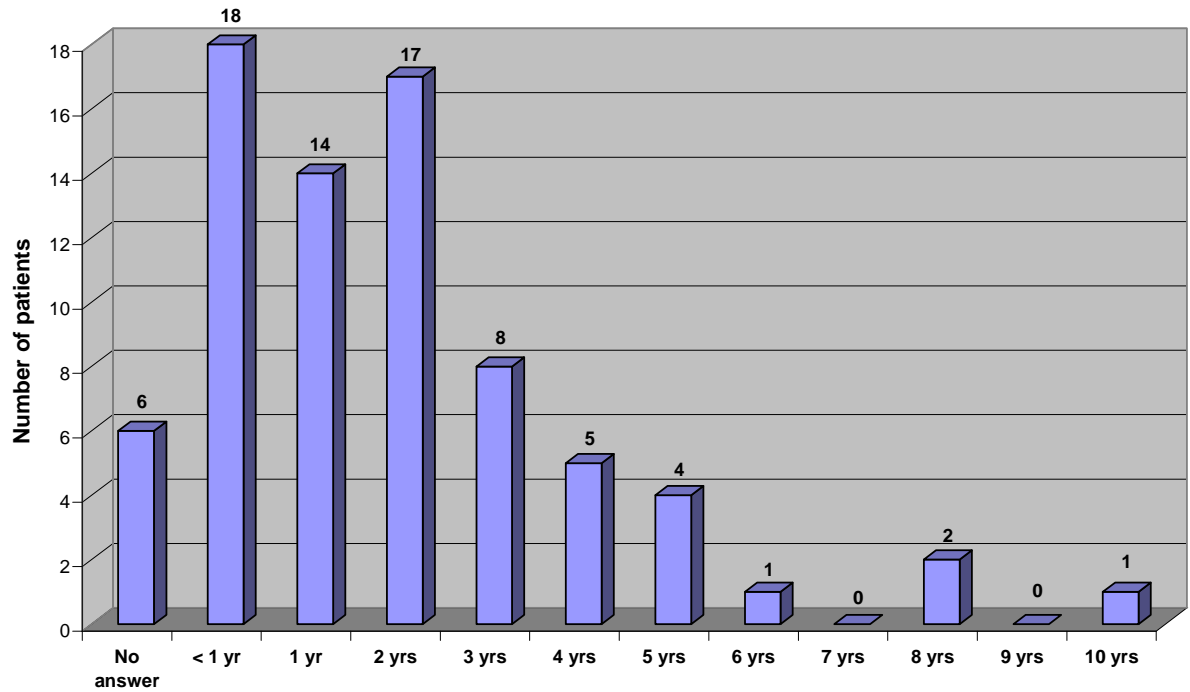
1. Age group and gender: There were 47 women and 29 men ($X^2 = 4.26, p < 0.05$), with the majority (77%) aged 20- 59. Only 11% were under 20 and 12% were over 60 ($X^2 = 68.04, p < 0.0001$).

All Patients: Age Groups and Gender



2. Number of years receiving telemedicine services at LCBHC: Seventy percent of the patients had received telemedicine services for 2 years or less, 25% for 3 to 6 years and 5% for 7 years or more ($X^2 = 46.64, p < 0.0001$).

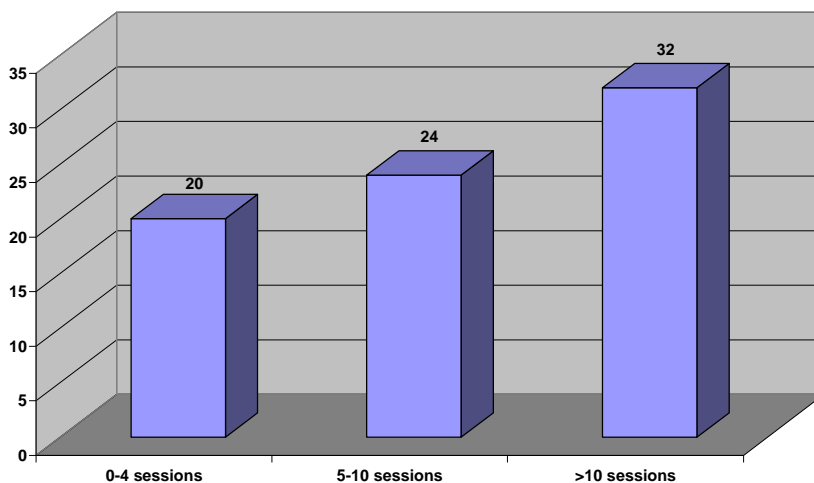
All patients: number of years receiving telemedicine services at this clinic



Only one patient reported receiving telemedicine services at LCBHC for 10 years. Most patients had been receiving telemedicine services for less than three years.

- Number of telemedicine sessions experienced at LCBHC: Twenty-six percent of patients experienced less than 4 sessions, 32% had 5 to 10 sessions, and 42% had more than 10 ($X^2 = 3.0, p > 0.05$).

All Patients: Number of Telemedicine Sessions



OVERALL SURVEY RESULTS

1. Quality of telemedicine medical care vs. in-person medical care

Survey question:

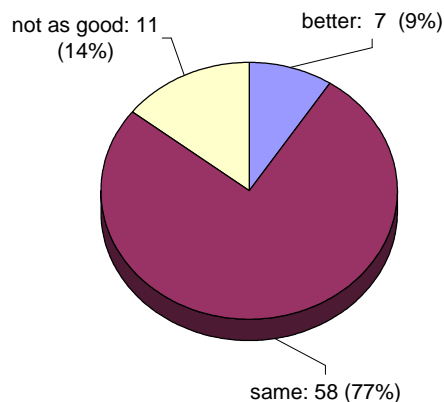
I think the quality of medical care over telemedicine is:

better than in-person

same as in person

not as good as in-person

All patients: quality of telemedicine vs. in-person sessions is:



86% of respondents find the quality of their medical care over telemedicine to be the same as or better than the quality of their medical care in person ($X^2 = 64.36, p < 0.0001$).

Patient comments:

- I love Ellen – she’s great! (22-year-old female)
- It is a great service. I enjoy talking with Ellen and Scott. (31-year-old female)
- I really like the service I get with Little Colorado Behavioral Center. They have always treated me well and professional. (49-year-old female)
- Works for me (59-year-old female)
- Telemed is an outstanding program. I feel it has been a great help to me. (55-year-old male)
- Length of time allotted isn’t always enough. (50-year-old male)
- Obviously very impersonal – but telemedicine has worked OK for us (35-year-old female whose 62-year-old mother also attends sessions)
- I feel that during my sessions Ellen is in the room physically. (62-year-old female)
- Telemed is better than having no psychiatric service at all. (60-year-old female)

2. Patients' preference between telemedicine and in-person care

Survey question:

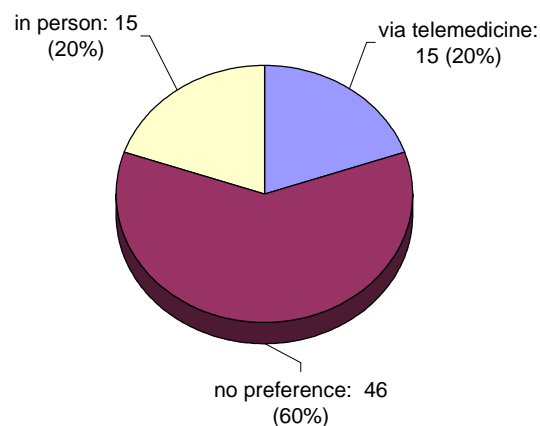
Given the choice of seeing my medical practitioner in person or via telemedicine, I would prefer:

telemedicine

no preference

in person

All patients: Given choice, would prefer to see psychiatric provider:



While more than half of patients did not express a preference between seeing their psychiatric practitioner in person or via telemedicine, those who did express a preference were evenly split between “in person” and “via telemedicine.” ($X^2 = 25.64$, $p < 0.0001$) Only 20% would prefer to see their psychiatric provider in person.

Patient comments:

- Whether I see my Telemed caseworker in person or by the internet does not matter. I can speak freely with her regardless. (48-year-old male)
- We have no choice since no medical people are available to do sessions in person (35-year-old female whose 62-year-old mother also attends sessions)
- The client circled “telemedicine” and wrote “is fine (very scary at first).” (47-year-old female)

3. Patients' feelings about having a clinician in the room

Survey question:

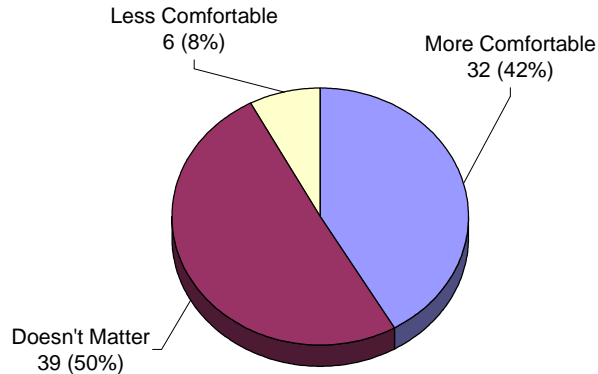
“Having a clinician (therapist, nurse, or case manager) in the room with me during my telemedicine sessions makes me feel:

more comfortable

doesn't matter

less comfortable”

**All patients: Having a clinician
in the room makes me feel:**



Though 92% of patients felt that a clinician in the room either had no effect on their comfort level or made them feel more comfortable, 8% stated the clinician’s presence made them less comfortable ($X^2 = 24.24, p < 0.0001$).

Patient comments:

- I would like to do teled w/o anyone else in the room its more comfortable for me (27-year-old female)
- The client circled both “more comfortable” and “less comfortable” and wrote “Depends who it is!” (50-year-old male)
- The client circled “more comfortable” and wrote “much” in front of it. (47-year-old female)

Survey question:

“Having a clinician (therapist, nurse, or case manager) in the room with me during my telemedicine sessions helps me feel that I have a team of people contributing to my treatment.

strongly agree

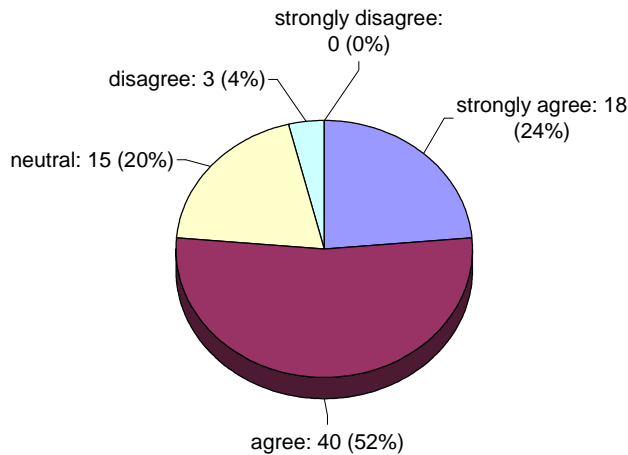
agree

neutral

disagree

strongly disagree”

All patients: Clinician in room helps me feel that I have a treatment team



Only 4% of patients disagreed that a clinician in the room helped them feel that they had a team of people contributing to their treatment. 76% agreed or strongly agreed ($X^2 = 66.87, p < 0.0001$).

Patient comments:

- Ellen and Becky are the greatest. I can tell them anything. I also know if I have a crisis, someone will be available to help me. I feel that I've made a lot of progress since I've started coming here. (58-year-old female)
- Having a clinician with me helps validate what was discussed. (60-year-old female)
- The client circled "agree" and wrote "Becky." (50-year-old male)

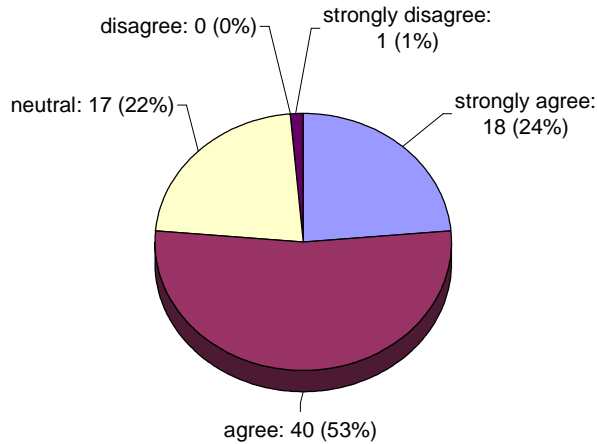
4. Patients' feelings about telemedicine sessions now vs. first sessions

Survey question:

"Compared to my first sessions, the ones I attend now run more smoothly.

strongly agree agree neutral disagree strongly disagree"

All patients: Telemed sessions now run more smoothly



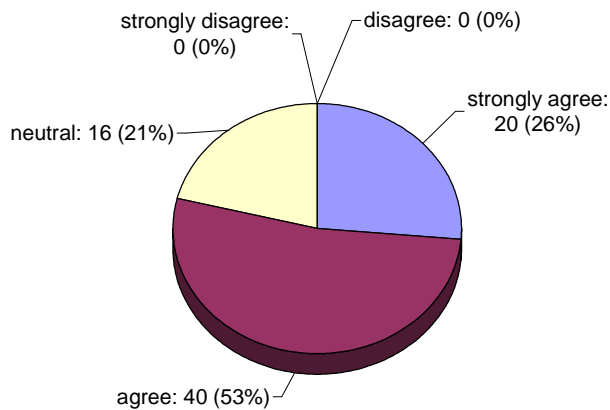
77% agreed or strongly agreed that their telemedicine sessions now run more smoothly compared to their first sessions ($X^2 = 709.61, p < 0.0001$). One patient who answered “neutral” to all four “now vs. your first telemedicine sessions” questions noted that this was her first session.

Survey question:

“Compared to my first sessions, I am more comfortable with the audio and video equipment.

strongly agree agree neutral disagree strongly disagree”

All patients: Now more comfortable with A/V equipment



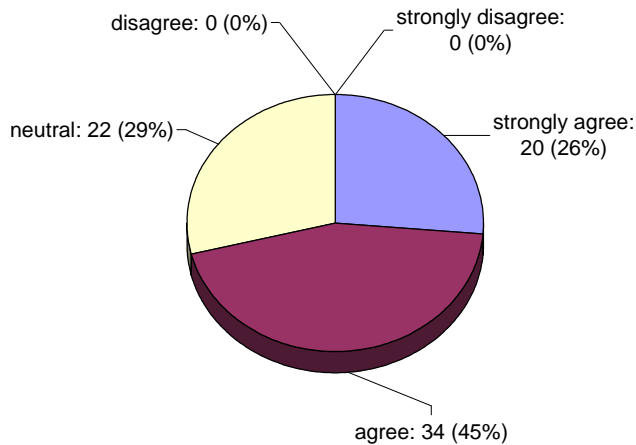
79% agreed or strongly agreed that they are now more comfortable with the camera and TV compared to their first sessions ($X^2 = 73.541, p < 0.0001$).

Survey question:

“Compared to my first sessions, I feel more at ease using telemedicine to see my medical practitioner.

strongly agree agree neutral disagree strongly disagree”

All patients: Now more at ease using telemedicine



71% of patients agreed or strongly agreed that they are now more at ease than in their first telemedicine sessions ($X^2 = 59.01, p < 0.0001$).

Patient comments:

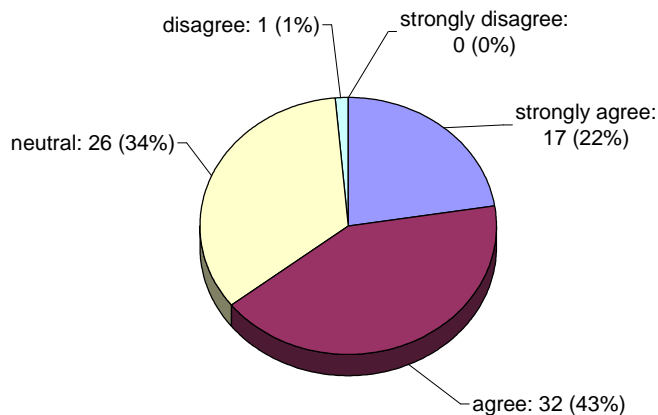
I'm not as nervous as I was at first (61-year-old female)

Survey question:

“Compared to my first sessions, I have fewer privacy and confidentiality worries about using telemedicine.

strongly agree agree neutral disagree strongly disagree”

All patients: Now fewer privacy/confidentiality worries



65% now have fewer privacy/confidentiality worries. ($X^2 = 55.68$, $p < 0.0001$)

Patient comments:

- The security is no concern. (60-year-old female)

Result summary:

- **Positive:** 86% of respondents find the quality of their medical care over telemedicine to be the same as or better than the quality of their medical care in person. **Negative:** 14% said it is not as good as in person.
- **Positive:** 80% of respondents either had no preference or prefer to see their psychiatric provider via telemedicine. **Negative:** 20% would prefer in-person sessions.
- **Positive:** 42% of respondents felt that a clinician in the room made them feel more comfortable. **Neutral:** 50% said it didn't matter. **Negative:** 8% said a clinician in the room made them feel less comfortable.
- **Positive:** 76% agreed or strongly agreed that a clinician in the room helped them feel that they had a team of people contributing to their treatment. **Neutral:** 20%. **Negative:** 4% disagreed, though 0% strongly disagreed.
- **Recent vs. first telemedicine sessions:**
 - Most (65%-79%) agreed or strongly agreed that their telemedicine sessions now run more smoothly compared to their first sessions; that they are now more comfortable with the telemedicine equipment; that they are now more at ease with telemedicine; and that they have fewer privacy/confidentiality worries.
 - Many (21% to 34%) answered "neutral":
 - Possibly many of these did not feel uncomfortable or worried in their first sessions, therefore they are not reporting a change.
 - Possibly many of these have had few sessions or only one session, so cannot discern a change.

- Possibly many of these are not experiencing improvement in the experience.
- One percent disagreed that their sessions now run more smoothly and strongly disagreed that they have fewer privacy/confidentiality worries.
 - This could be a positive if these respondents had no privacy/confidentiality worries to begin with and had smoothy running sessions from the beginning.
 - This could indicate a decline in the quality of the experience.

Result details:

Reports assessing patients' satisfaction by gender, age group, and number of telemedicine sessions experienced are included in Attachments A, B, and C, respectively. These breakout results include the following.

- Female patients appear more accepting of the quality of medical care via telemedicine than male patients.
- Patients aged 20 through 49 had much higher acceptance rates than patients younger than 20 or older than 49. The least positive toward telemedicine group is patients in their 50s.
- Patients in their 20s and 30s reported the least need to have a clinician in the room with them to make them feel comfortable during their telemedicine sessions.
- Patients who had experienced 5 to 10 telemedicine sessions were more likely than patients who had experienced fewer than 5 sessions to report that their sessions now run more smoothly than their initial sessions.

Implications for clinical practice:

- Most respondents found the quality of care over telemedicine to be equal to face-to-face care or had no preference.
- The presence of a clinician in the room was helpful or neutral, but did help patients feel they had a treatment team. It is a recommendation, not a requirement, that clinicians be present in the room with patients during telepsychiatry sessions. Patients should be allowed to refuse a clinician in the room based on clinical necessity.
- Most patients report increased comfort with increased telemedicine experience.