

The Use of Videoconferencing with Patients with Psychosis: A Review of the Literature

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Background: Technological advances in recent years have made the use of remote psychiatric assessment and treatment significantly more feasible. In particular, the increased availability and affordability of high-speed connections have made the use of videoconferencing (VC) a viable tool for interacting with patients remotely. Several factors make the assessment and treatment of psychosis particularly well-suited for VC. For one, as psychotic patients are often hospitalized or of lower socio-economic status, VC allows patients to be connected with specialists without need for travel. Assessment and treatment using VC is also a potential solution for patients with psychosis living in remote or underserved areas where there is a shortage of specialists. Secondly, as a tool in clinical research, VC makes it possible to use centralized remote expert raters who are able to remain blind to study design and conditions, therefore decreasing rater bias and improving interview quality. The hallmark symptoms of psychotic disorders might lead one to question the feasibility of using VC with this patient population. For example, are scores on symptom severity rating scales and diagnoses obtained remotely by videoconference equivalent to ratings and diagnosis done in person, given the complex nature of the disorder and the importance of nonverbal signs, such as negative symptoms? Are acutely psychotic patients generally willing to be interviewed remotely by videoconference? Does videoconferencing exacerbate delusions, such as delusions of reference? We endeavored to provide answers to these questions by conducting a thorough review of the literature.

Methods: We reviewed Medline, PsychINFO, and the Telemedicine Information Exchange database for literature on videoconferencing and psychosis. We used the following key words: telemedicine, telepsychiatry, televideo, videoconferencing, video conferencing, video and schizophrenia*

schizoaffective, psychotic, and psychosis. No date restrictions were used. All articles relevant to the use of videoconferencing with persons with psychosis were included in this review. We also reviewed reference sections for additional relevant articles. The literature search was completed in February 2009. We present findings in the following categories: clinical interventions; assessment; satisfaction and acceptance; and clinical research.

Results: A total of 28 articles were included in the review.

Clinical Interventions - Key Findings:

- There were no reports of exacerbation of suspiciousness/paranoia or of patients incorporating any aspects of VC into his or her delusional system
- Availability of telepsychiatry consultation for crisis intervention led to a decrease in hospitalizations and no significant adverse effects were reported
- Patients and clinicians adjusted well to the VC interaction and one study suggested VC is “a safe, effective, and useful method for the outpatient treatment of chronically mentally ill patients” (Graham, p. 614, 1996)
- Patients accepted the technology readily and quality of care was not diminished
- In studies of clinical outcome, there was no degradation in quality of outcome with the use of VC

Assessment - Key Findings:

- Objective assessments delivered via VC were generally equivalent to in-person assessments in both accuracy and satisfaction (e.g., Zarate et al., 1997)

- Interrater reliability on the BPRS using VC and in-person interviews is generally high with most ICCs ranging from .69 - .99 (e.g., Zarate et al., 1997)
 - higher bandwidth was associated with better agreement (i.e., ICCs .84-.99)
 - very low bandwidth conditions (e.g., 33kbps over phone line) are still acceptable, but can be problematic on some items (e.g., requiring detailed observation)
- Both raters and patients had high rates of acceptance of VC with patients in high bandwidth groups being more likely to prefer it to live interviews than those in the low bandwidth group (e.g., Baigent et al., 1997; Yoshino et al., 2001)
- VC is an effective tool for training raters to use the PANSS with patients with schizophrenia (Kobak, Opler, and Engelhardt, 2007)

Satisfaction and Acceptance - Key Findings:

- Both clinicians and patients have high rates of acceptance and satisfaction with VC (e.g., Matsuura et al., 2000)
- Some evidence that VC is better accepted by patients as it might be viewed as less threatening than being in the same room in close proximity (Chae et al., 2000)

Clinical Trials - Key Findings:

- One large scale Phase II clinical trial of schizophrenia using remote, centralized raters administering the PANSS via VC (1,993 assessments) successfully found a significant difference between active drug and placebo and had high internal consistency reliability throughout the study (Shen et al., 2008)



Conclusion: While there is still a paucity of controlled outcome research comparing treatment using VC to standard in-person care, reports of treatment via VC have been overwhelmingly positive. Findings generally indicate that patient care via VC is equivalent to in-person care, but also offers numerous advantages. There is little evidence that VC has a negative impact on rapport. In some older studies, patients and clinicians preferred in-person due to poor video quality found with older technology. In the most recent studies, patients overwhelmingly preferred VC to in-person assessment and care. Research and clinical work to date clearly indicate that clinical rating scales, psychiatric interviews, and diagnostic assessments can be reliably conducted using VC and are generally equivalent to those done in person. Findings suggest higher bandwidth connections improve reliability and the ability to evaluate nonverbal and negative symptoms and lead to higher rates of acceptance and satisfaction. Based on a comprehensive review of the literature and significant anecdotal experience of the authors, there is little evidence that persons with psychosis react negatively to VC or experience exacerbations of symptoms, including patients with specific delusions involving television or being monitored. In fact, there is some evidence that VC affords some patients a higher degree of comfort in that the perceived distance of the interaction is less anxiety provoking and reduces overstimulation found in some in-person interactions.