Irish Journal of Psychological Medicine (2018), **35**, 325–328. © College of Psychiatrists of Ireland 2017
doi:10.1017/ipm.2017.19

CASE REPORT

Telepsychiatry in Asperger's syndrome

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Background. Internet technology offers psychiatrists new opportunities for remote interaction with patients. It also raises issues regarding therapeutic effectiveness, safety, technical problems and possibilities for overcoming them, and matters related to specific mental health problems such as autism. The case presented concerns an adolescent male with severe social impairment and isolation as manifestations of Aspergers syndrome.

Methods. The patient was accepted contact with psychiatric services through telepsychiatry, which enabled initial assessment and the development of a therapeutic relationship.

Results. In due course the patient was able to attend the clinic in person. He became somewhat reconciled to his family. With appropriate adaptations he was able to resume his education and career.

Conclusions. Telepsychiatry shows promise in engaging with patients with autism spectrum disorders. As experience accrues, there is some evidence that it is safe and effective. Adaptations to traditional clinical psychotherapy may be required.

Accepted 20 February 2017; Received 15 March 2017; Accepted 11 May 2017; First published online 10 July 2017

Key words: Adolescence, ASD, Asperger's, psychotherapy, telepsychiatry.

Introduction

When telecommunications uses interactive videoconferencing between a patient and healthcare provider to render care in real time that is usually conducted in person, it is termed *telemedicine*. When telemedicine services are provided for psychiatric care, they are termed *telepsychiatry*. The internet offers opportunities for improved psychiatric care for patients for whom, for various reasons, access is a problem. To date most reports have emphasized the use of telepsychiatry to overcome the problem of distance. Most writing has emanated from the United States and, to a much lesser extent, from the developing world. The situation in Europe has scarcely been described at all, and, apart from a preliminary report in 2006 (Browne *et al*. 2006), there have been no papers from Ireland. In general there has been relatively little discussion of improving access for people whose very mental illness makes it difficult to attend for assessment and treatment, though the potential that one popular video game may actually help solve the expanding problem of social withdrawal (Tateno *et al*. 2016), and this could conceivably be implemented remotely in a mental health setting. Two recent reviews of telepsychiatry (Deslich *et al*. 2013; Chakrabarti, 2015) did not mention its use among young people with autism spectrum disorders (ASD) at all.

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Telecommunications technologies are increasingly being used to address the healthcare needs of underserved communities (Savin *et al*. 2006; Deslich *et al*. 2013). Whereas the American Academy of Child & Adolescent Psychiatry (Myers *et al*. 2008) considers the use of telepsychiatry for patients with autistic spectrum disorders, it restricts itself to issues of information gathering, and takes the view that autistic social impairments limit the usefulness of this technology for face-to-face therapy. A recent review of telepsychiatry for ASD (Knutsen *et al*. 2016), on the other hand, provided broad re-assurances as to safety and cautious optimism as to its potential.

Case report

A.K. was referred from another service at the age of 16 years. He had been diagnosed there as having Asperger's syndrome when he presented with vague somatic symptoms (chiefly aches and pains), and was found to have severe impairments in areas of reciprocal social interaction, communication, behavioural rigidity, and an unusual pattern of sensory hypo- and hypertolerances.

He found attendance at the child and adolescent mental health clinic extremely stressful, because of his extreme insistence on the same routine of scheduling and personnel. He was judged to have co-morbid depression, and was prescribed serotonergic antidepressants. These were ineffective in improving his mood, further souring

relations with the clinic. His family too had lost faith in the mental health service, and it was with difficulty that they were persuaded to try another.

When first referred to our service he had become extremely isolated socially. Alienation from the rest of his family had confined him to his bedroom for a year. Meals were left on trays outside his door. He would only come downstairs to the kitchen when sure others were out. His self-care had deteriorated markedly, and his personal hygiene was poor.

He refused to attend our service initially, as he had elsewhere. His mother did, however, come, and she provided a comprehensive neurodevelopmental history with the aid of the semi-structured Royal College of Psychiatrists Diagnostic Interview Guide for the Assessment of Adults with Autism Spectrum Disorder (ASD) (Berney *et al*. 2011). He was adept at internet technology, in which he had an absorbing interest, and this was now his main link to the outside world. He agreed to an appointment through a voice over internet protocol (VOIP) application which he used, and which involved standard desktop or laptop computer hardware and software.

The first 'appointment' served as a general introduction for both psychiatrist and patient, the latter being more confident and less self-conscious with use of the technology. The second session involved completion of the patient responses to the Royal College of Psychiatrists ASD assessment, to which his mother had already contributed.

Further sessions were scheduled monthly for the next 3 months. These were used to strengthen the therapeutic alliance, to assess mood state, and to help him address problems posed by his extreme cognitive and behavioural rigidity in so far as they maintained hostility towards other family members. A healthcare worker, engaged by his family, gradually won his confidence, and he was then able to go outdoors, on hikes and on shopping visits into town. He agreed to attend psychotherapy sessions in person now, accompanied by this person. From this point appointments via internet were no longer necessary.

Discussion

Because of ambivalence regarding autonomy and institutional healthcare, on the one hand, and suspicion and cognitive inflexibility on the other, establishing a therapeutic relationship with adolescents with ASD can be particularly difficult. Internet technologies offer a way of interacting with patients who, for various reasons, are unwilling or unable to attend a clinic in person. The young person presented here was nearly confined to his bedroom because of paranoia and extreme cognitive rigidity, which made it impossible for him to co-operate with family members who could have facilitated his attendance.

The use of web-based technology for interviewing and therapy with autism patients raises several important issues. On the one hand, the internet can improve access to hard-to-reach patients in general. Most published work in this regard has dealt with people who were far from their therapists; rather less has been written about people who, because of their very condition, be it major depressive disorder, schizophrenia, or, as in the present case, Asperger's syndrome. Remote contact may also, by reducing the need to attend clinics, help patients who are reluctant to attend because of stigma.

Several conditions must be met for telepsychiatry to work well. The American Academy of Child and Adolescent Psychiatry (Myers *et al.* 2008) has drawn up 13 principles which provide a comprehensive framework both to designing, implementing and maintaining services, and to tailoring telepsychiatry services to individual patients and their families. In broad terms, these can be considered under headings of safety and risk, confidentiality and privacy, technical matters, and personal qualities of the therapist.

Because the patient, who may be at high risk, is physically remote from immediate expert help, specific contingency plans must be in place: this will normally entail a secondary form of communication and a contact person who will be able to step in should the situation get out of hand.

Electronic communication (including telephones, emails, and VOIP) always involves the risk of a breach of privacy and confidentiality, and everything possible and reasonable must be done to minimize this. Informed consent should be obtained, and every effort should be made to anonymise personal information. The utilization of telemedicine for patients runs the risk of leaving a 'digital paper trail', allowing unwanted people access to personal information (Deslich *et al*. 2013). Other breaches in confidentiality include poor security of transcribed medical information, improper storage of video or voice recordings of the session, spyware or malware on the practitioner's or patient's computer, and hackers who break into the systems (Chamberlin, 2010). One manner to protect privacy during telepractice procedures is to use a virtual private network (VPN). A VPN can provide several types of data protection, including confidentiality, integrity, data origin authentication, replay protection, and access control. The National Institute of Standards and Technology has a manual currently available as a free download from the HIPPA website (Cichonski *et al.* n.d.) that provides specific recommendations concerning VPNs and telepractice.

Not only is there need for more research on safety and privacy, but there is as yet little evidence regarding

https://doi.org/10.1017/ipm.2017.19 Published online by Cambridge University Press

the effectiveness or otherwise of telepsychiatry as compared with face-to-face therapy. Two systematic reviews have been published to date. Boisvert *et al*. (2010) found that parents were highly satisfied with psychotherapy delivered online. Regarding the use of telepsychiatry in ASD, Knutsen *et al*. (2016), while noting methodological shortcomings in most studies, found that evidence generally supported the feasibility and effectiveness of internet technologies to improve access to special evaluations and autism expertise. Although eye contact and other non-verbal communication might be supposed to be more difficult through videoconferencing, the special expertise of some patients, particularly adolescents and many with Asperger's syndrome may indeed make it preferable to face-to-face communication. Some patients with paranoia for various reasons might prefer to deal with their therapist directly, rather than through parents or other family members, as would normally be necessary with young people, and such was indeed the case with the patient we present.

Certain abilities of the therapist, not normally relevant in psychiatric practice, assume importance in telepsychiatry. The skill set needed to practice telepsychiatry includes familiarity with the equipment and ability to troubleshoot minor difficulties, as well as the development of a clinical style that maximizes communication through this medium (also known as *videoconferencing etiquette*). Rapport in telepsychiatry is established within a space that does not physically exist and in which participants do not have access to all the surrounding stimuli or to the nuances of the others' presentation. The American Academy of Child and Adolescent Psychiatry has published guidelines (Myers *et al*. 2008) on telepsychiatry with young people; preliminary work on how the lack of physical presence affects the relationship suggests that a more casual clinical style optimizes rapport.

Good technical backup is essential for web-based communication such as telepsychiatry. A transmission speed of at least 384 kb/minute is required. There is a danger of 'audio delay' whereby conversational exchanges interrupt each other. Poor broadband coverage is common even in developed countries, and dropped connections can be a problem. In many cases improved software would be an advantage, such as would allow for shared screen for completion of questionnaires etc.

Conclusion

Video consultations via the internet have become well established and offer solutions to problems of access for patients with particular problems. This case is one such example, and demonstrates the personal, clinical, ethical, and technical questions that are raised by the use of telepsychiatry, particularly in young people with Asperger's syndrome who refuse to attend a clinic because of paranoia with respect to family who might have facilitated attendance in person. With due safeguards and precautions, there are good reasons for making telepsychiatry available to individuals with ASD and other mental health problems.

Acknowledgements

The author would like to express gratitude to the patient and his family for permission to report on this case.

Financial Support

This research received no specific grant from any funding agency, commercial or not-for-profit sector.

Conflicts of Interest

The author asserts that there is no conflicts of interest.

Ethical Standards

The author asserts that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committee on human experimentation with the Helsinki Declaration of 1975, as revised in 2008. Written informed consent was obtained from the individual discussed in this case report.

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https://doi.org/10.1017/ipm.2017.19 Published online by Cambridge University Press