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Case Report

Delivery of Family Therapy in the Treatment of Anorexia Nervosa Using Telehealth

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ABSTRACT

Family therapy plays an important role in the comprehensive treatment of adolescents with anorexia nervosa (AN). However, most comprehensive hospital-based treatment facilities for eating disorders are situated in large urban centers, thus not accessible to individuals living in underserviced rural communities. Telehealth is now being used to provide psychiatric services to individuals who do not have access to urban-based treatment centers. We report the therapeutic outcome and patient satisfaction of using telehealth to provide family therapy as an adjunctive treatment for AN to an adolescent female admitted to a large urban-based hospital treatment program. Family therapy was delivered via telehealth in a therapeutic environment within a hospital setting, and was received in a telehealth facility in the rural community. Family therapy was effectively delivered and contributed to patient recovery, as measured by objective criteria (weight gain, improved medical condition) and subjective clinical observations. In addition, all family members reported high satisfaction with telehealth without any concern regarding confidentiality. The advantages of telehealth are discussed in the context of legal and ethical issues relating to the use of this technology to deliver psychiatric care.

INTRODUCTION

ANOREXIA NERVOSA (AN) is recognized as a chronic psychiatric condition characterized by restrictive dietary practices leading to unhealthy low body weight, a morbid fear of being fat, and obsessive pursuit of thinness.[1] AN is most prevalent in adolescent girls and young women, and it is associated with considerable adverse psychosocial and medical consequences.[1] It is one of the few psychiatric illnesses that may result in death if unsuccessfully treated, with reported mortality rates of 6–10% in adolescents.[2–4]

The treatment of severe AN often requires a multidimensional approach, including psychopharmacology, nutritional, and psychological rehabilitation, and frequently involves hospitalization for those who are severely malnourished. Family therapy has been shown to be a critical component in the treatment of AN in children and adolescents.[5–8] However, family therapy requires that, whenever possible, all family members be accessible for therapy, even

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if the family is not always seen in therapy sessions as a whole unit.[6] This poses a considerable barrier to treatment given that many families are not intact for various reasons, such as separation, divorce, and long-distance work arrangements.

Technological advances in the form of telehealth/telemedicine (thereafter referred to as telehealth), internet-based interventions, and email-based interventions are emerging as viable methods for providing a wide variety of health services to people who live in remote or rural settings and who cannot receive face-to-face treatment.[9,10] The delivery of psychiatric services using telehealth is known as telepsychiatry, and evidence from randomized controlled trials support its use.[11,12]

Based on a search of the literature using Medline and PsycInfo computerized databases, this case study is the first to report therapeutic outcome and patient satisfaction of using telehealth to provide family therapy as an adjunctive treatment of AN to an adolescent female admitted to an in-patient eating disorder program.

MATERIALS AND METHODS

Family therapy is based on the principles outlined in Lock et al.'s[8] treatment manual for AN. This was provided in a small secure room within the Psychiatry Department of The Children's Hospital of Eastern Ontario's (CHEO), through CHEO's Telehealth platform. The communications capacity consists of a codec that utilizes H.320 videoconferencing standard. Bandwidth was limited to 128 kbps, and it proved to be adequate in this case.

Videoconferencing platforms enabled far-end camera control by family members in the community and by the therapy provider. The ability to control each other's cameras and pan around the room allowed the therapist as well as the family to gauge facial expressions and body language at both ends.

CASE REPORT

"H" was a 16-year-old Caucasian girl from a small, under-served city in northern Ontario in Canada. She was flown to CHEO on an emergency basis following a referral by her local physician. She was subsequently assessed by and admitted under the eating disorder in-patient team with a diagnosis of AN-Restricting type and symptoms of depression and anxiety. On initial physical examination, she was found to be of very low weight, with body mass index (BMI; kg/m^2) of 15.4, electrocardiogram (EKG)–sinus bradycardia of 35, low blood pressure of 98/60, and hypothermia of 35°C. Nutritional replacement was started.

A face-to-face family assessment was conducted with all family members to gain a better understanding of family dynamics and encourage parents eventually to take charge of their daughter's problems. We perceived her complex family dynamic as playing a significant etiological role in the development and persistence of her eating disorder. Based on these family dynamics, an arrangement was made to initiate family therapy via telehealth.

The family gave informed written consent in which issues of confidentiality were fully described. The initial plan consisted of providing eight family therapy sessions via telehealth, with a re-evaluation scheduled to determine whether additional sessions were needed. The decision for the initial eight sessions was based on the availability of the telehealth facility at that time, as well as clinical judgment. All eight sessions were held with H's father and sister based in their own community, and H, her mother, and the therapist in the hospital. H's brother was not available to participate in the family therapy. Sessions were conducted weekly, with each session lasting for 1 h. Modifications to the manualized treatment protocol were made during the sessions. For example, sometimes the family was allowed to confer for up to 15 min before sessions commenced.

By the end of the eighth session, H felt closer to her family, especially, her father. At the time of discharge, H had gained significant weight, with a BMI of 19.5; had accepted the fact that she had an eating disorder; and was taking responsibility for her recovery. She also recognized the many emotional issues underlying her illness.

An evaluation of the impact and satisfaction of telehealth in the context of delivering fam-

ily therapy was completed by the patient and her family. The family perceived these sessions as very beneficial, evidenced by positive ratings on such indices as the setting in which telehealth was conducted, flexibility of scheduling, and suitability of environment and atmosphere. They gave very positive ratings on items assessing the quality of auditory and visual clarity that allowed them to hear and speak to each other and to the therapist. In addition, they reported that they would be very willing to participate in family therapy via telehealth at a later date, if required.

DISCUSSION

This case study illustrates that family therapy for AN can be effectively delivered using telehealth technology. Telehealth was needed because the patient resided in a remote underserviced community, and without this technology, family therapy as a critical component in the treatment of AN would not have been possible. In addition, both patient and family members were highly satisfied with service delivery using telehealth. Even though situated in the community, they reported the service and the setting to be convenient and secure, with no concerns about confidentiality. These reports are consistent with community-based interventions delivered through telehealth in various patient populations.[13]

There are several advantages of using computer-based video conferencing to deliver psychiatric services, but these do not come without controversy. Telehealth is a cost-effective method for delivering specialized health care services to patients who live in under served areas who would otherwise not receive adequate treatment. Additionally, the opportunity to deliver family therapy allows for more comprehensive treatment, which may shorten the duration of in-patient hospitalization. Other advantages that may be realized include feeling protected by the distance in a way that patients feel safe enough to express their feelings that may not have been expressed in traditional family therapy.[13] This phenomenon has been cited as an advantage in patients with AN receiving email based adjunctive therapeutic services.[10]

While telehealth provides several advantages that enhance clinical service provision, some potential barriers to implementation should be noted. For example, health care providers licensed in a particular state or province need their credentials assessed by regulating bodies in order for them to provide services to patients outside their jurisdiction. Additionally, there is an obligation for hospital-based telehealth services to ensure that patients' rights are protected, a situation that is more difficult to manage because of potential breaches of confidentiality or security at the center in which telehealth services are received. There is also the issue of lack of universal policy governing the use of telehealth in delivery of health care in Canada and elsewhere.[14] Establishing parameters of telehealth use for the provision of health care services may function as a catalyst for more widespread use.

Many of the previously mentioned barriers for delivering telehealth do not apply to the current case because the family of the patient resided in the same jurisdiction as the therapist (i.e., province of Ontario). Moreover, therapy was received in a community-based setting, making it less complicated than if received in a hospital-based setting.[14]

Although the current results are encouraging, more controlled research is needed to examine the effectiveness of telehealth and establish the parameters for its therapeutic use in the treatment of AN.

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