Chapter L
Paediatric Telepsychiatry as Innovation in Healthcare Delivery

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ABSTRACT

Although a great deal has been written about the potential for telemedicine to increase access to care, applications in paediatrics are sparse. This chapter details how one paediatric telepsychiatry program has facilitated the creation of integrated healthcare solutions in patient psychiatric care for children and youth in remote and rural communities. It demonstrates how the telepsychiatry model of healthcare service delivery has improved access, enhanced capacity, and promoted knowledge exchange in rural communities. A case study is used to highlight theoretical and empirical research on the value of televideo information technology in mental healthcare and its impact on the healthcare stakeholders who utilize this technology. An overview of the clinical, education, and evaluation components of the program is outlined, with a focus on knowledge translation and exchange as the underpinning foundation to the success of the program.

BACKGROUND

The recent proliferation of live interactive video-conferencing technology has made it possible for two or more individuals to interact in real time, sharing information through electronic media. Telepsychiatry is a specific term designating psychiatric applications employing live interactive televideo (ITV) communication (The Work Group on Quality Issues, 2008). In fact, telepsychiatry

(Brown, 1998; Ruskin, Reed, Kumar, et al., 1998) is emerging as one of the most successful uses of this technology. Telepsychiatry has important implications for accessing paediatric subspecialty services, determining future health care workforce requirements and their distribution, improving communications with parents of sick and chronically ill children, and extending the boundaries of the medical home (Spooner & Gotlieb, 2004).

The Canadian Standing Senate Committee on Social Affairs, Science and Technology (Kirby & Keon, 2006) recommended that telepsychiatry be utilized in rural and remote communities for consultations, education and training of mental health practitioners. This is a prudent recommendation, because children and families in rural and remote areas may face more obstacles to obtaining services and support that those in urban areas (Cutrona, Halvorson & Russell, 1996; Starr, Campbell & Herrick, 2002). The problems of service access often result from geographic, economic and cultural factors (Kelleher, Taylor & Rickert, 1992; Letvak 2002). Canada is a vast, sparsely populated country, with a varied and sometimes harsh climate and geography. In thinly populated areas, travel expenses increase the costs of both providing and obtaining care. Furthermore, it is difficult to recruit and retain specialists and allied health care workers, who tend to concentrate in larger urban areas (McCabe & Macnee, 2002). The geographic and professional isolation makes rural communities less attractive to mental health workers. In addition, the shortage of resources and support services in rural communities means that children requiring urgent care often must be placed in residential care outside of their community (Sheldon-Keller, Koch, Watts, et al., 1996).

The problems associated with the mental health service system in rural areas (access, delivery, recruitment, retention) are exacerbated because, within the health research community, rural issues are often overlooked or dealt with generically. When rural perspectives are examined, it is frequently within the context of urban-rural differences, rather than as the sole focus of attention (Pong, Atkinson, Irvine, et al., 2000). Thus, providing psychiatric services to children and their families in rural and remote regions must address geographic barriers to access (Boydell, Pong, Volpe, et al., 2006) as well as the cultural context of individual communities, and the distribution, attraction and retention of psychiatrists and other mental health professionals.

THE TORONTO PAEDIATRIC TELEPSYCHIATRY PROGRAM (TPTP)

In the province of Ontario, Canada, the problem of access to specialty mental health care in rural communities is particularly problematic. In Canada, 20 percent of children and youth have a diagnosable mental health problem, yet only 1 in 6 receive any treatment (Offord et al., 1987). The ratio of child psychiatrists to children with mental health needs is approximately 1:6,148 (Steele & Wolfe, 1999). Furthermore, approximately 2% of child psychiatrists practice primarily in areas with populations of less than 20,000 while approximately 18% of the population resides in rural areas (Steele & Wolfe, 1999). Northern Ontario alone is the size of France and England combined.

To begin to address this need for service and support, in 2000 the Ontario Ministry of Community and Social Services (currently the Ministry of Children and Youth Services) (MCYS) funded the Division of Child Psychiatry, University of Toronto, operating through The Hospital for Sick Children (SickKids), in Toronto, to create The Toronto Paediatric Telepsychiatry Program (referred to as TPTP in the remainder of this chapter). The mandate of this program is to provide bilingual (English and French) psychiatric consultations and education to under-serviced children's mental health community agencies and their clients, utilizing ITV. As an academic site within the

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