Chapter 18
Using Technology and Community Partnerships to Improve Educator Preparation:
Changing the Landscape for Individuals with Autism Spectrum Disorder

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ABSTRACT

This chapter describes how an institution of higher education, Bowling Green State University (BGSU), partnered with the Ohio Center for Autism and Low Incidence (OCALI), a quasi-governmental agency, to meet the training needs of the local, state, national, and international community by providing an online autism spectrum disorders (ASD) certificate program. This curriculum incorporates and builds on OCALI's numerous on-line learning modules specifically focused on ASD that were developed by experts in the field of autism. Today over one hundred individuals from eight states and three countries have completed the comprehensive certificate ASD program through BGSU. This program is one example of how technology has broadened the outreach of educational preparation in ASD from local to national and international audiences.

INTRODUCTION

Autism spectrum disorder (ASD) has been increasing at an alarming rate in the world (Coo, Ouellette-Kuntz, Lloyd, Kasmara, Holden, & Lewis, 2008; Kim, Leventhal, Koh, Fombonne, Laska, Lim, Cheon, Kim, Kim, Lee, Song, & Grinker, 2011; Unknown, 2012). In a review of international epidemiological studies, Fombonne (2003) estimated that up to 60 individuals per 10,000 under the age of 20 have an

ASD. In a more recent review, Elsabbagh, Divan, Koh, Kim, Kauchali, Marcín, and Fombonne (2012) found the prevalence to be 62/10000, which translates to 1 in every 160 children worldwide with ASD. This increase has also been felt in schools (Simpson, 2004; Smith, Polloway, Patton, & Dowdy, 2008), however educators are not equipped to meet the needs of students with autism in their classrooms. This is partially due to the lack of accessible, high-quality programs to train educators on how to meet the needs of this population, leading the National Research Council (2001) to cite educator preparation in ASD as being among "the weakest elements of effective programming for children with autism spectrum disorders" (pp. 225). This article describes how one university partnered with a governmental agency using technology as a tool to expand the access to high quality education in ASD to educators in schools.

OVERVIEW OF AUTISM SPECTRUM DISORDER

Autism has long been recognized as a condition that affects individuals in the areas of social reciprocity, language/communication, and restrictive/repetitive behavior (American Psychiatric Association, 2000). Under a new definition, recently published in the fifth edition of the Diagnostic and Statistical Manual (American Psychiatric Association, 2013), these major areas remain but are reframed under the diagnostic category of autism spectrum disorder. The areas of deficit in this revised definition are social/communication and fixated interests and repetitive behaviors with sensory sensitivity included under the area of behavior (Vivanti, Hudry, Trembath, Barbaro, Richdale, & Dissanayke, 2013). Once considered a low incidence disability, the rates of ASD have increased in the overall population at an alarming rate (Simpson, 2004; Smith et. al, 2008).

PREVALENCE OF AUTISM SPECTRUM DISORDER

Individuals with ASD come from all racial, ethnic, and socioeconomic groups, and include both males and females, although the majority of individuals are males. According to the Centers for Disease Control and Prevention (2012), the percentage of children being diagnosed with ASD has increased by 78% since 2007. In 2007, the CDC estimated that ASD was occurring at a rate of one in 150 children and most recently the CDC estimated that ASD is occurring in one in 88 children (Centers for Disease Control and Prevention, 2012). In March 2014, the Centers for Disease Control and Prevention issued their ADDM autism prevalence report. The report concluded that the prevalence of autism has raised to 1 in every 68 births in the United States and almost 1 in 54 boys (Centers for Disease Control and Prevention, 2014).

PREVALENCE OF AUTISM SPECTRUM DISORDER IN SCHOOLS

Along with the increase in ASD in the general population, there has been a concomitant increase in ASD in schools. Accordingly, autism has been cited as the most rapidly growing disability category in the United States under the Individuals with Disabilities Education Improvement Act (Center for Disease Control, 2009; Dymond, Gilson, & Myran, 2007; Newschaffer, Falb, & Gurney, 2005). However, the actual numbers of individuals with autism in schools may be even higher. Individuals with ASD can be categorized under other disability categories such as Intellectual Disability or Speech/Language Impair-

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