Using big data to better understand health and wellbeing

Part A: Primary healthcare for young people on the autism spectrum

Executive summary

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The Cooperative Research Centre for Living with Autism (Autism CRC)

The Cooperative Research Centre for Living with Autism (Autism CRC) is the world's first national, cooperative research effort focused on autism. Taking a whole-of-life approach to autism focusing on diagnosis, education and adult life, Autism CRC researchers are working with end-users to provide evidence-based outcomes which can be translated into practical solutions for governments, service providers, education and health professionals, families and people on the autism spectrum.

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Executive summary

PURPOSE OF THIS STUDY

The purpose of these studies was to use 'big data' to provide a snapshot of what happens in primary care for young people on the autism spectrum in Australia.

STUDY DESCRIPTION

This project involved two studies with the overall aim of investigating the reasons for encounters, problems managed and medications prescribed by Australian General Practitioners (GPs) to young people on the spectrum in comparison to those not on the spectrum.

DATA ANALYSIS

This project utilised data from the Bettering the Evaluation and Care of Health (BEACH) program. The BEACH program continuously collects information about the clinical activities in general practice in Australia. Each year the program recruits a random sample of about 1,000 GPs, each of whom collects data on 100 consecutive consultations.

Data collected from March 2000 to April 2014 of people aged up to 25 years was analysed. Young people on the spectrum were identified by those encounters with a GP at which ASD was recorded as a reason for the encounter and/or problem managed. Chi square tests and odds ratios were used to compare the ASD and non-ASD groups.

SUMMARY OF FINDINGS

A total of 282,052 encounters were identified, of which 579 had an ASD-associated code recorded and 281,473 did not. Those on the spectrum had more reasons and a different profile of reasons for encounters with GPs than those not on the spectrum. The top reasons for encounters for these individuals were largely related to psychological conditions or requests for services such as referrals. Whilst prescription rates for those on the spectrum were similar to those not on the

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spectrum, the rate of psychological medication prescription was significantly higher for those on the spectrum. Antipsychotics and antidepressants were the most common types of medication prescribed to those on the spectrum. Detailed analysis of these findings has been published.

IMPLICATIONS/RECOMMENDATIONS

The high complexity of needs reported in the reasons for encounter with a GP for the ASD group highlight the need for primary health care services to be equipped to meet the specific needs of younger people on the spectrum.

The rise in consultations where an ASD was recorded since 2000 highlights the urgent need to upskill GPs and healthcare providers in best practice healthcare management for young people on the spectrum.

The rate of psychological problems managed in the ASD group was seven times that of the non-ASD group. Effective management of psychological conditions and social issues in patients on the spectrum presents a challenge to GPs and requires specific support through continuing education, and development of tailored tools.

In light of the high rates of psychological problems managed and higher rate of psychological medications prescribed to this group, GPs and specialists should be aware of current clinical guidelines for best treatment practices, which recommend use of first-line psychosocial (e.g. behavioural, speech-language and educational) interventions to manage core symptoms of autism in children and adults.

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