**COMORBIDITIES AND MEDICATION USE IN ADULTS WITH AUTISM SPECTRUM DISORDERS IN A CANADIAN AGENCY PROVIDING RESIDENTIAL SERVICES**

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**Objectives:** Research literature into the mental and physical health of adults with ASD is limited. It is particularly true for those with severe disability living in a residential setting. Due to the complexities of multiple diagnoses and the absence of guidelines, these problems can cause challenges for the physicians who treat them. This study documented the current health state of adults with ASD living in residential homes located primarily in central Ontario with their emotional and physical comorbidities clearly delineated. As a highly medicated group, their medication use for multiple psychiatric and medical conditions along with their behavioural manifestations is profiled. Findings from this study are to inform healthcare providers in improving the health outcomes of this high need segment.

**Method:** Cross-sectional review of medical records was conducted on 77 group home residents with ASD. Their demographics, psychiatric and medical diagnoses, together with their medication profile were collected. Descriptive methods were used for analysis of all categorical and continuous variables.

**Results:** 77 (58 males) ASD adults, aged 20 to 67yr (mean 38.1yr), have been in residential care on average of 15.6yr. The mean number of physical comorbid diagnoses was 2.6, while the mean number of comorbid psychiatric disorders was 1.3. Mean BMI (Body Mass Index) was 26.6 ( 17.7 to 36.5). Their psychiatric profiles were complex and had notable symptom overlap. Consequently, disorders were classified by broader categories (Psychosis, Anxiety, and Mood disorders). Psychotropic polypharmacy ranged from 1.2 medications/patient to 4 medications/patient in relation to psychiatric diagnostic cluster.  Physical comorbidities increased with successive age-group. No clear correlations between the treatment modalities and comorbid disease states was observed. However, the medical complexity of individuals is very apparent.

**Discussion / Conclusion:** The medical and psychiatric complexity of ASD in adults in residential settings is very apparent. Pharmacotherapy is an important component of a multi-modal treatment plan. The findings of this study warrant advocacy for more effective communication systems between residential care staff and physicians to ensure accurate diagnosing and prescribing among treating physicians. Future recommendations include assessing the efficacy of behavioural and medical management logs to improve communication between residential staff and prescribing physicians.

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