Introduction

The health disturbances because of ASD (Autism Spectrum Disorders) focus attention of public health leaders, psychologists, pedagogues and physicians, mainly pediatricians for several decades [1-3].

The etiology of the above-mentioned health disorders, related to genetic, sociological and environment polluted by chemicals, has not been satisfactorily explained over the last three decades [4-9].

Sources of Data

While reviewing the literature of the above-mentioned health disorders, PUBMED was analyzed, mainly from the beginning of the last decade of the 20th century, until 2018.

The presented results, 1990-2018 can have different, interpretations taking into account the recommendations of the new American psychiatric classification DSM-5 published in 2014 (Diagnostic and Statistic Manual of Mental Disorders-5) [3].

Based on data from the Demographic Yearbook for Poland for 2017, it was found that among children, above two years and adolescents up to 17 years of age, the population of boys is 3,155,000 and girls 2,994,000 [10].

Analysis of the Data

According to CDC (Centers for Diseases Control and Prevention) in the USA, the prevalence of ASD increased from 1 case to 150 children in 2000, to 1 case to 59 children in 2014, i.e., over 2.5 times. Current epidemiological analysis shows that the increase of the prevalence of ASD is primarily the result of higher, early reporting of children, as a result of a more complete awareness of parents [11].

The presented data show that population ASD is at the level of approx 1.0%, with the ratio of boys to girls as much as 4 to 1.

Three groups of factors that can reduce the risk of developing ASD disorders in children and adolescents, more often found in boys, were distinguished:

1. Strengthening the proper functioning of the axis of the gut microbiome - the brain, with particular emphasis on its microglia cells [12-18].

2. Introduction of diets reducing the risk of malnutrition and abnormal nutritional status of children with ASD [4,19].

3. Reducing the exposure of children and adolescents population to environmental chemical pollution [20,21].

Conclusions

1. It was estimated based on the above-mentioned values that in Poland the number of boys with ASD risk may be not more than 30,000 and in girls four times less i.e., around 7,500.
2. There are no epidemiological data from representative studies on the prevalence of ASD in children between 3 and 17 years of age in Poland. It is necessary to carry out an appropriate diagnosis.

3. In view of the probably common endocrine chemical disruptor’s exposure in Poland, damaging microbiome, probably in the dominant part of the population and also increasing the risk of central nervous system dysfunction on some mark, it can confirm the above-mentioned ASD incidence rate.

4. One of the overriding problems of prevention of ASD is a reduction in the frequency of using several hundred endocrine chemical disruptors in the national economy, especially in agriculture, mass catering and the cosmetics industry.

References


