

Review Article

The Paradox of the Autism Epidemics

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Abstract

The impressive increase in the diagnosis of autism which has occurred over the last decades is reviewed and differences are noted between Western and some Eastern countries. This 'autism epidemics' began in the late eighties when autistic subjects were seen to have a lack of 'mentalising' abilities and this diagnosis was possibly favoured by inappropriate reliance on some corresponding psychological tests. Another relevant factor is probably the exceptional interest the media and other agencies in present society revealed in autism. Several disorders and difficulties of young children such as language disorders, dyspraxias, etc may have symptoms in common with autism and the importance of a differential diagnosis in this respect is stressed in order to avoid misdiagnosis and consequent mistreatment. The paradox of the autism epidemics lies in the fact that a condition, autism, generally considered with a strong genetic basis, becomes the subject of an 'epidemic': examples from the past show that a similar huge increase in diagnosis has occurred with different labels in other economic and employment conditions.

Keywords

- Autism
- Epidemics
- Paradigm effect
- Differential diagnosis

ABBREVIATIONS

TOM: Theory of Mind; DSM: Diagnostic Statistical Manual; ADOS: Autism Diagnostic Observation Schedule; ADI: Autism Diagnostic Interview

INTRODUCTION

The progressive increase in the diagnosis of autism which has occurred over the last three decades, arriving at very high values in recent years, is hardly compatible with its genetic basis. It questions on the one hand the nature of this condition and the adequacy of the corresponding definitions and suggests on the other that factors different from this diagnosis are possibly at play in structuring this paradoxical epidemic. It follows that, if this large increase in diagnosis includes over-diagnosis, its counterpart, misdiagnosis, can be a danger for the health of children and their families.

The increase in the diagnosis of Autism

The prevalence of autism had been notably constant in different parts of the world until the eighties with values around 4:10.000 [1-4] in a period when its diagnosis followed Kanner's criteria [5]. In the following years, starting in the eighties, it began to increase. In Sweden, for example, values of 4:10.000 were reported in 1980 and subsequently of 7.5: 10.000 in 1984 and 11.6:10.000 in 1988 in the northern part of the country [6] and had gone up to 176:10.000 a couple of decades later [7]. The prevalence in US according to diagnosis reported by parents was 110:10.000 in 2007 [8] and went up to 250:10.000 i.e. 1:40 in

2016 in two subsequent studies [8, 9]. It is worth noting that the prevalence of autism in Iceland in two cohorts from the period between 1974 and 1994 where diagnosis was obtained through ICD9 and ICD10 showed a prevalence respectively of 3.6 and 8.6:10.000 [10]. In a subsequent study, using ICD10 plus ADI-R and ADOS prevalence for children living in Iceland in 2009 was 120:10.000 [11].

These data suggest that in some countries at least, the increase in prevalence occurred at the same time as, at the end of the eighties, the interest of many professionals was captured by experiments suggesting that in most cases of autism there was a basic difficulty in 'mentalising ability' i.e. in the ability to take the mental perspective of another person [12]. Within this context a number of new psychological tests were designed, attracting growing attention and often considered to be diagnostic within a view of autism as 'one' disorder, secondary or idiopathic, with corresponding symptoms and neuropathology [13,14]. In other countries as, for example, Iceland, the attention in this direction was postponed for a few years and subsequently followed a similar path with similar results in terms of increasing prevalence. A change in diagnostic criteria over time has occurred also on the general definition of autism with a substantial change from DSM III to DSM III R and DSM IV (almost identical to ICD10), contributing substantially to the higher rate of autism [15].

The need for a careful differential diagnosis

In those years, however, and more recently the need for a careful differential diagnosis was stressed by some authors,

who pointed out that there are many alternative diagnoses in an individual with autistic-like symptoms since a number of neurodevelopmental disorders and difficulties have some common symptoms [16, 17]. In addition abnormalities in ToM have been found in subjects with such different mental disorders as schizophrenia and mood disorders [18, 19] whereas in children and adolescents diagnosed as autistic and with good mental abilities there ToM was not an abnormal [20]. It should also be pointed out that studies conducted in other countries have given profoundly different results. A careful evaluation of 44 studies conducted in China has shown that, if prevalence was based on clinical diagnostic criteria the pooled result was 39.23:10.00. If, instead, diagnosis was structured on screening tests, the prevalence went up to 429.07:10.000 [21].

In addition, in contrast with autism, no 'epidemic' has been reported for other neurodevelopmental disorders with specific neurobiologic features such as Down syndrome with a stable prevalence from the early sixties up to the present (from 1:552 to 1:700) and Soto's syndrome(0.7:10.000), both with overgrowth and other typical somatic features in addition to psychological trends, Rett syndrome(around 1:10.000) where diagnosis is favoured by the typical hand-washing plus a sequence of neurological stages and in Tourette syndrome by an excess of movement with motor and vocal tics(around 1:100) [22-25]. In each of the above quoted examples there is a visible neurobiologic coherence which is not evident in autism.

The selective response of society to autism

It is therefore evident that an extensive misdiagnosis is the counterpart of the rapid and impressive increase in autism diagnosis which has occurred in most western countries. In this respect it can be seen that in the last quarter of a century there has been a selective response of society to Autism, subjected to the attention of the media and supported by events such as Autism Day with the pyramids and parliament house lit up in blue on the occasion. The promoters of autism diagnosis are numerous and may include meeting in a mall and having a chat with a mother of a child diagnosed in this way: it has been noticed that this goes together with a fourfold increase of autism diagnosis in some area of California [26].

The paradigm effect(*) is a possible explanation of why so many professionals in different western countries have adopted similar diagnostic approaches to this problem, giving an excessive, inappropriate value to some psychological tests and taking in account less differential diagnosis.

Interestingly something similar occurred at the end of the sixties in Italy. In a period when internal and external immigration brought millions of people from the south to the north of the country or abroad to other European countries screenings were conducted with psychological tests on mental retardation in many schools with values up to 14.6%, nine or ten times more than values usually accepted for this condition [27]. The great majority of these children only spoke dialect and came from families with a poor level of literacy. In these cases misdiagnosis was the result of an incomplete clinical work and an inappropriate use of tests: the diagnostic terminology, concerning general mental abilities, in some way corresponded

to the minimal capacities required for industrial work. The future of these labelled children could be viewed as either in a marginal job, or excluded from it.

CONCLUSIONS

In present society the autism epidemics are apparently related to an inadequate differential diagnosis with numerous, different difficulties of young children, including social anxiety, selective mutism, verbal and manual dyspraxias, attention deficit with hyperactivity, language disorders, attachment difficulties and early onset Tourette syndrome accompanied by regression [28-30]. At the same time Autism means a severe lack in the ability to relate and communicate and in this way is connected to the basic values of a society where these abilities are often essential to participation in the job market and as a consequence becomes the subject of a selective attention of the media and other agencies.

The paradox of an autism epidemic lies in observing that this condition – autism – which still has different interpretations but is generally considered to have a strong genetic basis becomes the subject of an epidemic. It may help us to rethink autism as something, characterized in its history by continuously changing definitions, distant from being 'a disorder' and closer to behaviours with some common features, part of different genetic conditions and liable of different outcomes. (*) The paradigm effect has been defined as 'The effect that few, simple concepts, connected together as in a 'Gestalt', have on our experience, providing a sense and a structure'(Lantéri-Laura G: Essai sur les paradigmes de la psychiatrie moderne Le Temps Editions 1998).

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