Differences in Reports of ASD across Cultures

Children are diagnosed with autism spectrum disorder (ASD) when they have deficits in communication, socialisation and repetitive behaviours and fixed interests. Some believe that these symptoms are common across all cultures, however the symptoms may be thought of differently in different cultures. Little research has been conducted on how the symptoms of ASD are reported in different cultures.

The research that has been done suggests that there may be some differences in the way the symptoms are expressed and in the rates of ASD diagnosed across different cultures. This may be because some cultures define disability differently, are less likely to get their children diagnosed for a disability, or may encourage a diagnosis of ASD rather than one of intellectual disability. In addition, different cultures have different ideas of what behaviours are considered typical and the rate of normal development.

The Study

The aim of this study was to look at the ASD symptoms of children in Israel, South Korea, the United Kingdom (UK), and the United States (US). There were 145 children in total, with 38 from Israel, 40 from South Korea, 27 from the UK, and 40 from the US. The children all met the diagnostic criteria for ASD, were aged between two and 16, and 83% were male.

The parents or caregivers or teachers of the children answered questions from the Autism Spectrum Disorders-Diagnostic for Children (ASD-DC). The ASD-DC is a questionnaire often used to aid diagnosis of ASD and give information on ASD symptoms; nonverbal communication/ socialisation, verbal communication, social relationships, and insistence of sameness/ restricted interests. Higher scores indicate more severe symptoms of ASD.

ASD Symptoms According to Culture

The average (mean) scores for each country on each subscale of the ASD-DC are shown in the table below.

ASD-DC Subscales	**Israel**	**South Korea**	**UK**	**US**
Nonverbal communication/ socialisation	16.4	18.3	24.5	21.4
Verbal communication	10.1	12.5	13.1	10.7
Social relationships	9.6	9.8	11.4	10.3
Insistence of sameness/ restricted interests	3.5	5.7	8.8	7.7

Overall, children from the UK scored highest on all subscales, suggesting the most severe ASD symptoms. Children from Israel scored lowest, suggesting the least severe ASD symptoms.

No significant differences were found between any of the countries on the social relationships subscale, suggesting that children from all four countries have similarly severe symptoms. There were, however, differences found between the countries in the remaining three subscales.

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On both the nonverbal communication/ socialisation and insistence of sameness/ restricted interests subscales, the US and the UK groups scored significantly higher than Israel and South Korean groups. This suggests that children from the UK and US have more severe ASD symptoms in the areas of nonverbal communication, socialisation, insistence of sameness and restricted interests.

On the verbal communication subscale, the UK group scored significantly higher than the US and Israel, and South Korea scored significantly higher than Israel. This suggests that children from the UK and South Korea have more severe verbal communication symptoms.

Potential Explanations for the Differences

While they were not expecting differences in the reported ASD symptoms of the children in the different countries, the authors suggested several things that may have contributed to the differences. Firstly, there may be differences in the parents' expectation of what they believe is typically developing behaviour. For example, behaviours that, in one country are thought to be indicative of ASD may not be viewed as abnormal by parents in another country.

A second reason for the differences may be due to diagnostic differences between the countries. For example, in the UK, children are assessed for ASD after signs are identified by the parents or doctor, however, in some places in the US, all children are screened for ASD during routine appointments with pediatricians.

Thirdly, the differences may have been due to the people who answered the questions on the ASD-DC. In the UK, many of the children who took part were recruited for the study from schools, and their teachers rated their symptoms. Comparing these children to other, typically developing children, the teachers may have been more severe in their ASD symptom ratings. Other children in the study were rated by psychologists and people very familiar with ASD, who may not have been as severe in their ratings as the teachers.

Finally, the research did not investigate the intellectual abilities of the children who took part in the study. The differences that were found may actually be due to the sample of children from one country having overall lower or higher intellectual abilities than the children who made up the samples from the other countries.

On a closing note, the authors suggested that it would be interesting to compare ASD symptoms in developed countries (like the ones that were investigated in this study) with those in developing countries (e.g., Ethiopia). In developing countries, children may develop more slowly than those in developed countries due to malnutrition, malaria, poor cognitive stimulation and other deficiencies. In these countries, ASD symptoms may not be seen as so severe as the children might not differ as much from the general population.

Summary

The ASD symptoms of children in Israel, South Korea, the UK and the US were rated and compared. While the ratings of social relationships did not differ across countries, ratings of nonverbal communication/socialisation, verbal communication and insistence of sameness/restricted routines did differ. This was surprising as all these countries

are developed countries and the diagnostic criteria for ASD is accepted worldwide. The differences may be due to cultural differences of what is typically developing behaviour, diagnostic differences between the countries, the person who answered the questions and rated the behaviour, or to differences in the intellectual abilities of the samples.

Reference

Matson, J. L., Worley, J. A., Fodstad, J. C., Chung, K., Suh, D., Jhin, H. K., Ben-Itzhak, E., Zahor, D. A. & Furniss, F. (2011). A multinational study examining the cross cultural differences in reported symptoms of autism spectrum disorders: Israel, South Korea, the United Kingdom and the United States of America. *Research in Autism Spectrum Disorders, 5*, 1598-1604.