Are There Subgroups Within the Newly Defined Autism Spectrum Disorder?

What is this research about?
The Diagnostic Statistic Manual (DSM) 5 includes many changes in the criteria for mental health disorders. In past versions of the DSM autism spectrum disorder (ASD) had 3 subtypes. In the DSM 5 severity of ASD is set upon 2 continuous scales:

- Social communication (SC).
- Fixed interest and repetitive behaviors (FIRB).

Each scale ranges from 1 to 3. A rating of 1 means little help is needed; a rating of 3 means that a great deal of help is needed.

There has been much discussion on whether the new scaled severity in the new diagnostic criteria for ASD could be used to create subgroups for ASD. Identifying subgroups within symptom domains could help with diagnosis and treatment planning.

What did the researchers do?
To find ASD subgroups factor mixture modeling (FMM) was used to analyze data on 391 cases of newly diagnosed children with ASD. FFM was chosen as it explores potential variations in severity within the proposed ASD subgroups.

What did the researchers find?
Results suggest there are 3 distinct subgroups within the autism spectrum:

- Group 1, has moderate SC impairment, and lowest FIRB scores
- Group 2, has low SC impairment, and moderate FIRB scores
- Group 3, has high SC impairment, and high FIRB scores

Past research suggests that SC and FIRB symptoms of ASD arise from separate risk factors.

What you need to know:
New criteria for autism spectrum disorder (ASD) have affected how ASD is diagnosed and treated. This has affected how discussions of ASD happen between professionals, patients and family members. The new criteria do not negate research that suggests subgroups exist within the ASD diagnosis.

Clinical tests were used to assess for ASD symptom severity, language problems, and level of intelligence.
Detection of the distinct subgroups supported the idea that symptoms of ASD arise from isolated risk factors. It should be noted that there was variability of severity even within the identified subgroups. More research is needed before these subgroups could be used in a clinical setting. The subgroups could inform discussions between doctors, parents, and treatment providers.

How can you use this research?

Policy makers will learn the importance of funding tailored intervention programs that meet the different needs of children with ASD.

Practitioners will find that even if there are subgroups in ASD there is still variability within these groups. Thus, individual needs must be taken into account when developing treatment plans.

About the Researchers

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