

# Psychological and Behavioural Impact of Autism Spectrum Disorder on Siblings

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Are Siblings of Children with Autism More Prone to Behavioural & Psychological Problems as Compared to the General Population?

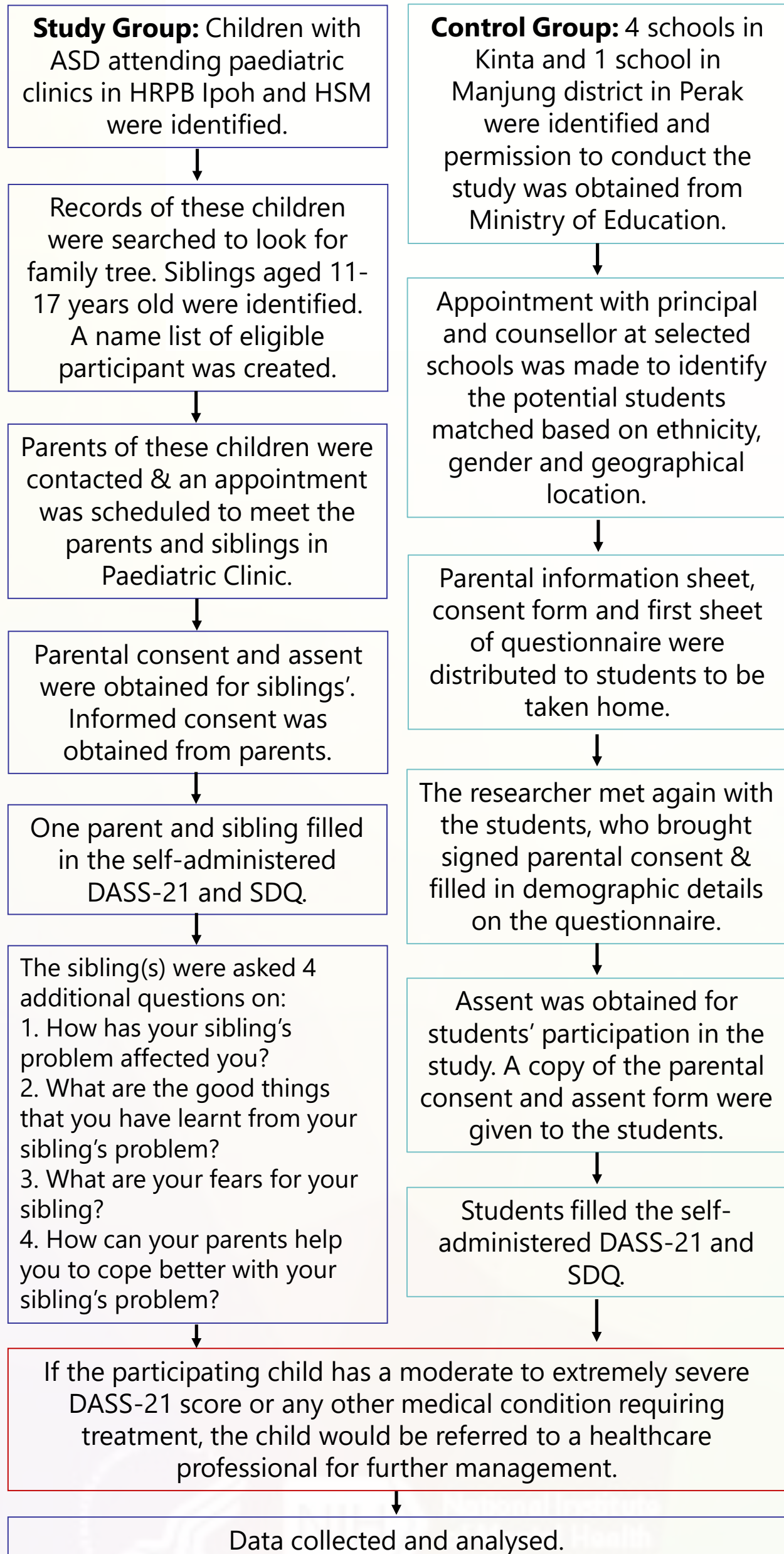
## Introduction & Objectives

Autism spectrum disorder (ASD) is a neurodevelopmental disorder that begins in childhood, characterized by impairments in communication, behaviour & social functioning, with a prevalence of 1.6 in 1000 children in Malaysia. Living with a child with ASD can result in significant financial, emotional and lifestyle challenges for the family and siblings. This study aimed to compare the psychological well-being of these siblings versus their parents' and general population; and their social well-being versus parents' perspective and general population.

## Methodology

**Study design:** Cross-sectional study.

**Figure 1: Methodology flow diagram**



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## Results

- We recruited **34 study group** pairs & **34 controls**.

### A. Socio-demographics:

- 33 families in the study group (97.1%) had one child with ASD.
- Majority of the participating parents in the study group were mothers (n=27, 79.4%).
- Among the fathers in both groups, almost two-fifth of them (n=27, 39.7%) were routine & semi-routine workers while 38 (55.9%) had secondary education level.
- Majority of the mothers in both groups (n=38, 55.9%) were full time housewives while 38 (55.9%) had secondary education level.
- A total of 47 families (69.2%) in both groups had a combined monthly income of below RM5000.
- Most children were Chinese (58.8%) females (67.6%).

### B. Comparison of depression, anxiety and stress (DASS) level among parents and siblings of children with ASD (Table 1)

Characteristics	Parents, n (%)	Siblings of children with ASD, n (%)	p value*
<b>Depressed</b>	8 (23.5)	9 (26.5)	0.779
<b>Anxiety</b>	18 (52.9)	18 (52.9)	1.000
<b>Stressed</b>	11 (32.4)	6 (17.6)	0.161

\* Analysed using Chi-square test

### C. Comparison of DASS among siblings of children with ASD and children living with healthy siblings (Table 2)

Characteristics	Siblings of children with ASD, n (%)	Children with healthy siblings, n (%)	p value*
<b>Depressed</b>	9 (26.5)	11 (32.4)	0.594
<b>Anxiety</b>	18 (52.9)	18 (52.9)	1.000
<b>Stress</b>	6 (17.6)	8 (23.5)	0.548

\* Analysed using Chi-square test

### D. The behavioural difficulties level among siblings of children with ASD in comparison with the perspective of their parent (Table 3)

Strength and difficulties level	Parental evaluation, n (%)	Siblings of children with ASD, n (%)	p value*
Close to average	0	7 (20.6)	
Slightly raised	5 (14.7)	6 (17.6)	<b>0.039</b>
High	3 (8.8)	2 (5.9)	
Very high	<b>26 (76.5)</b>	<b>19 (55.9)</b>	

\* Analysed using Fisher's exact test

### E. Children evaluation of strength and difficulties level between groups (Table 4)

Strength and difficulties level	Siblings of children with ASD, n (%)	Children with healthy siblings, n (%)	p value*
Close to average	7 (20.6)	3 (8.8)	
Slightly raised	6 (17.6)	4 (11.8)	0.090
High	2 (5.9)	9 (26.5)	
Very high	19 (55.9)	18 (52.9)	

\* Analysed using Chi-square test

### F. Qualitative feedback of children on the impact of their ASD siblings:

Positive outcomes	Negative response
- Having a sibling with ASD taught them kindness, tolerance, patience, as well as effective communication & listening skills.	- difficulty to focus in their studies as they were often overwhelmed with the situation of having an autistic sibling.
- Some children learnt to be more grateful, independent and responsible, by appreciating their siblings and also guiding them	- worried about the safety of their siblings and whether their behaviour could affect the public negatively

## Discussion & Conclusion

Psychological well-being of siblings of ASD children were similar to their parents and controls, but poorer than the general adolescent population (NHMS 2017). Their social well-being was similar to the controls. Their parents perceived them to have higher SDQ scores.