

# Academic Experiences of University Students with ASD

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## INTRODUCTION

Autistic Spectrum Disorder (ASD) is considered to be a neurodevelopmental disorder that spans a spectrum characterized by impairments in:



Social Interaction  
and Communication

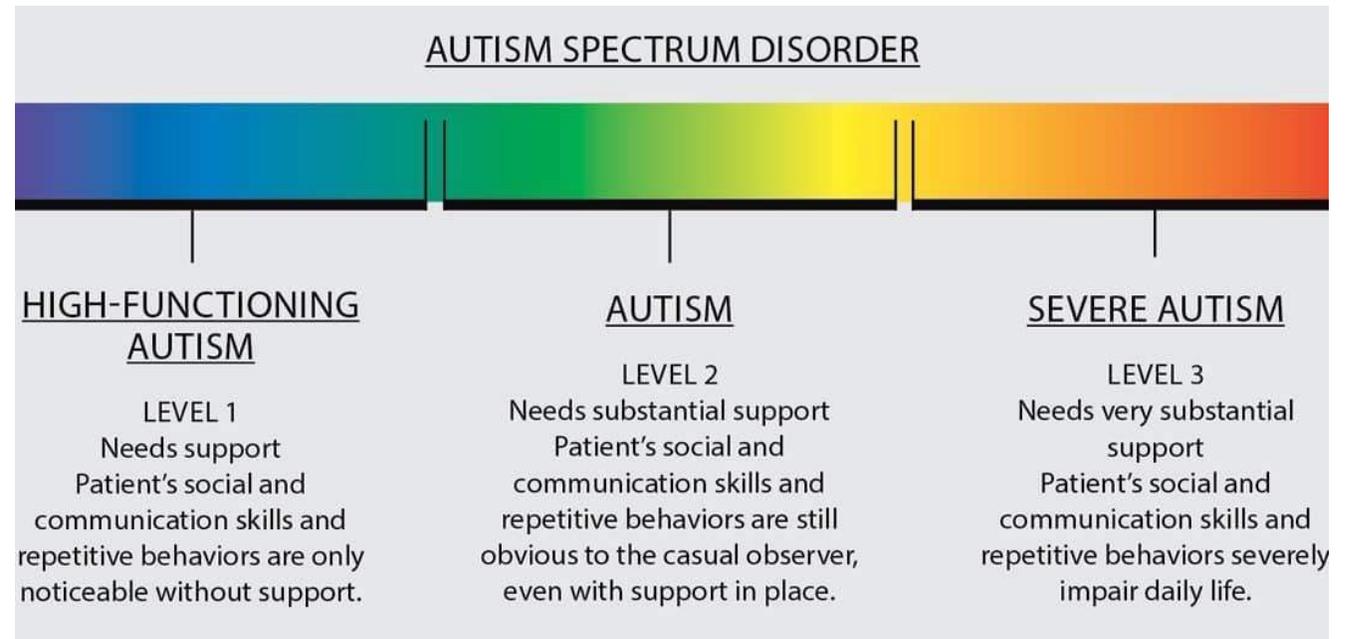
Restricted interests  
and repetitive  
behaviors

*American Psychological Association [APA], 2013*

## INTRODUCTION

It is heterogeneous in many forms, including its developmental trajectory: while most children with a diagnosis of ASD continue to experience substantial social difficulties in adulthood, a subset may no longer meet the diagnostic criteria.

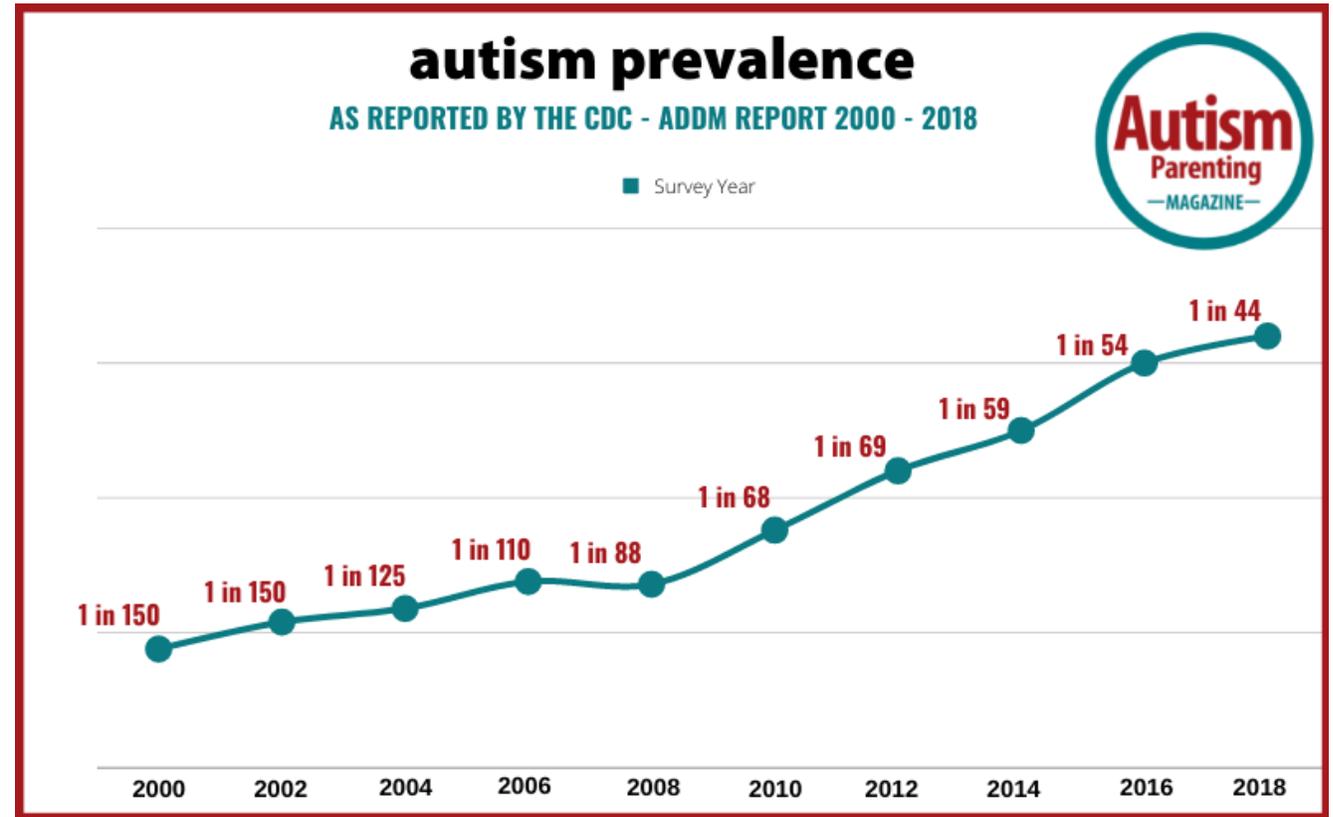
Gillberg, Helles,  
Billstedt, & Gillberg, 2016



## BACKGROUND

The international literature states that in recent decades there has been a significant increase in the rates of diagnosis of ASD.

Myers et al., 2018

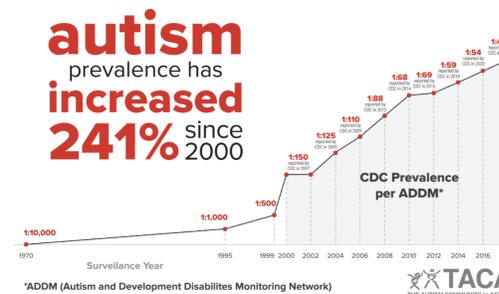


## BACKGROUND

This rise eventually reflects the demand of this public at various levels of education, including the demand for young people with ASD to enter university.

- However, this number is still small, considering that about one third of this audience attended college in the first six years after High School completion in the American reality.

**(Shattuck et al., 2012)**



## ACADEMIC EXPERIENCES OF UNIVERSITY STUDENTS WITH AUTISM SPECTRUM DISORDERS: AN INTERPRETATIVE ANALYSIS OF REPORTS<sup>1</sup>

*EXPERIÊNCIAS ACADÊMICAS DE ESTUDANTES UNIVERSITÁRIOS COM TRANSTORNOS DO ESPECTRO AUTISTA: UMA ANÁLISE INTERPRETATIVA DOS RELATOS<sup>2</sup>*

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Research

**ABSTRACT:** Given the growing rate of adults with Autism Spectrum Disorders (ASD) entering university, this study sought to describe the academic experience of six students with this diagnosis, regularly enrolled in a public university in the state of São Paulo. Individual interviews were conducted to identify topics related to undergraduate entry, permanence, accessibility, relationships and suggestions for improvements in the university context. Based on the precepts of the Historical-Cultural Psychology, we used the qualitative analysis of the reports, especially the core of meaning, which constituted the initial establishment of pre-indicators, followed by the agglutination of this content into indicators, and the construction of the Core of Meaning. As a result, poor interactional experiences were verified during Basic Education. At the university, the controversies between interest in undergraduate studies and lack of preparation in the university context appeared as factors that generate anguish and anxiety associated with barriers to permanence and the need to complete the course within the regulatory period. It was identified the need for adjustments both in the singular and in the academic social context, with emphasis on the participation of students with ASD, which is still little debated and recognized, and the adaptations to the environment, which fall mainly to the subject, against the precepts of educational inclusion.

**KEYWORDS:** Autism. Autistic Spectrum Disorder. University. Inclusion. Disability.

**RESUMO:** Diante do crescente índice de adultos com Transtornos do Espectro Autista (TEA) que ingressam na universidade, este estudo buscou descrever a experiência acadêmica de seis estudantes, com esse diagnóstico, regularmente matriculados em uma universidade pública no estado de São Paulo. Foram realizadas entrevistas individuais que buscaram identificar tópicos relacionados ao ingresso na Graduação, permanência, acessibilidade, relacionamentos e sugestões de melhorias no contexto universitário. Pautado nos preceitos da Psicologia Histórico-cultural, utilizou-se da análise qualitativa dos relatos, em especial dos Núcleos de Significação, que se constituiu no estabelecimento inicial de pré-indicadores, seguido pela aglutinação desse conteúdo em indicadores, e a construção dos núcleos de significação. Como resultados, foram verificadas pobres experiências interacionais durante o Ensino Básico. Na universidade, as controvérsias entre o interesse pela Graduação e o despreparo do contexto universitário apareceram como fatores geradores de angústia e ansiedade associados às barreiras de permanência e à necessidade da conclusão do curso no prazo regulamentar. Identificou-se a necessidade de ajustes tanto no âmbito singular quanto no contexto social acadêmico, com destaque para a participação de estudantes com TEA, que ainda é pouco debatida e reconhecida, e para as adaptações ao meio, que recaem majoritariamente ao sujeito, na contramão dos preceitos da inclusão educacional.

**PALAVRAS-CHAVE:** Autismo. Transtorno do Espectro Autista. Universidade. Inclusão. Deficiência.

## OBJECTIVE

- Describe the academic experience of six students diagnosed with ASD, regularly enrolled in a public university in the state of São Paulo, Brazil.

## METHODS

Characterization  
of participants.

<b>Participant</b>	<b>Gender</b>	<b>Age</b>	<b>Age at diagnosis</b>	<b>Course</b>	<b>Course time</b>
P1	Male	30	28	Industrial wood Engineering	12 Years
P2	Female	22	19	Biological Sciences	4 Years
P3	Male	26	18	Marine Biology	2 Years
P4	Male	24	21	Mechanical Engineering	6 Years
P5	Male	37	7	Mathematics	4 Years
P6	Male	23	13	Social Sciences	4 Years

## METHODS

# Questionary (example questions)

- **Undergraduate study Admission**
  - Why did you choose this degree? (Why this course? Why this campus? How did you come to this decision?) • When you took the college entrance exam, were you favored with adaptations? (At the exam venue, type of desk, resources such as online or other favoritism, which)? • If so, did you request it? What did you think of the support received? If not, why do you think you didn't? And what did you think of that? • Have you declared yourself with a disability in the enrollment process?
- **Accessibility**
  - Did you attend and/or use the different university spaces (library, computer lab, leisure areas, canteen, etc.). Did you consider that there are accessibility barriers? • How do you analyze accessibility conditions in relation to your undergraduate achievements? • Who did you relate to in the undergraduate course, and how is your relationship with them? • How is your relationship with classmates? Professors? And the university professionals? • Did all professors know and/or consider your educational needs and consider them in planning classroom activities? Did you notice any situation that is favorable or not for your learning? • How is your classroom learning assessed?
- **Easiness or difficulties encountered in the university context**
  - Did you find easiness or difficulties in fulfilling your administrative and academic activities (system enrollment, document delivery, photocopy material location, etc.)? • Can you follow all the activities offered by the university (extension courses, lectures, meetings, etc.)? Report any strategies you consider favorable/unfavorable for your learning. • Did you follow course subjects on time? Did you think there is any easiness and difficulty to attend classes at the university? Did you use any specific features? • Did you have difficulty performing your research? If so, which ones? (access to participants, institution etc.).

## METHODS

# Procedures

- **Data collection procedure**
  - Data collection took place in individual **face-to-face meetings**, which began with the request to fill in the characterization/identification form.
  - All interviews were recorded in audio files and lasted 90 minutes on average.
- **Data analysis procedures**
  - Initially, the obtained audios were transcribed in text documents.
  - Subsequently, the reports were submitted to apprehension of the content and organization of the material.
  - Subsequently, qualitative methodological procedures, denominated Core of Meaning (Aguiar & Ozella, 2006), were used to assist in the interpretation of the participants' reports, in order to achieve access to superior psychic processes, in the interpretation of the senses and meanings attributed to them to certain phenomena.

**DATA ANALYSIS**

**Example**



**Pre-indicators**

**Indicators**

**Core  
meaning**

# Analysis of the Reports



## Bullying

- They mocked me (3);
- They isolated me (3);
- They called me a mental retarded (2).

## Complicating factors related to the condition of ASD

- Difficulty with social interaction (6);
- Difficulty in maintaining friendships (5);
- Difficulty with concentration (4);
- Strange behavior (3);
- Persecution (3);
- Very intense brain activity (2);
- Stereotyped movements (2);
- Difficulties in dealing with change (2);
- I have no empathy (2).

## Struggle to remain at the University

- Same teaching and evaluation criteria (6);
- Treated as a normal student (6);
- Premisses(5);
- Parents help (4);
- Learning disability (3);
- Absences (2);
- Lack of follow-up (1).

	Indicators	Reports Pre-indicators and number of participants
1	Experiences in Basic Education under the condition of ASD	Good grades (5); difficulty with social interaction (4); difficulty concentrating (2); learning difficulty (2); very anti-social (2); certified by ENEM (2); difficulty in a discipline (2); many absences (2); change of schools (2); communication difficulty (1); bad grades (1); never fit in (1).
2	<b>Bullying</b>	<b>They mocked me (3); They called me a retard (2); They isolated me (3).</b>
3	Degree Importance	Have always liked the area (5); followed the choice of classmates (2); Made the dream come true (2); Approached normality (1).
4	Undergraduate admission and ASD	<b>Had no adaptations (6)</b> ; did not have the diagnosis (3); did not want them to know (2); did not like pranks (2); did not know that Asperger was a disability (1); They asked me nothing (1); was bewildered (1).
5	University accessibility barriers	Information barrier (6); had no help (5); had accessibility group (3); The lack of skilled professionals (3); There was no accessibility group (2); Campus is not accessible (2); <b>did not request (2)</b> ; They said that it did not exist (1); Building is accessible (1).

6	<b>Struggle for University stay</b>	<b>Same teaching and evaluation criteria (6); As a normal student (6); Dependencies (5); Parents help (4); Learning disability (3); Absences (2); Lack of follow-up (1); removal (1).</b>
7	Professor unpreparedness	Bad judgment (5); were warned (3); Humiliated me (2); They do not understand (2); He said I have no capacity (1); Certification on how to act (1); There is nothing to do (1); Bullying action against me (1); They despised what I asked (1).
8	<b>Complicating factors related to the condition of ASD</b>	<b>Difficulty with social interaction (6); Difficulty in maintaining friendships (5); Difficulty with concentration (4); Strange behavior (3); Persecution (3); Very intense brain activity (2); Stereotyped movements (2); Difficulty dealing with change (2); I have no empathy (2).</b>
9	Socio-emotional factors	Fights (4); People's conduct (4); Compel to leave University (3); Mask (3); Seizures (2); I was always anti-social (2); I felt normal (2); Chubby (2); I couldn't stand it (2); Hell (2); They did not want to accept (1); never fit in (1); Traumatized (1); was terrified (1).
10	<b>University Improvement Suggestions</b>	<b>Professor with more affinity (1); More empathy and patience from professors (1); Clear access to materials (1); Orientation on both sides (1); Understand the student's difficulty (1); Awareness (1).</b>

## RESULTS

The pre-indicators were firstly established, followed by the agglutination of this content into indicators, and the treatment was finalized with the construction of the core of meaning.

### CORE MEANINGS

### INDICATORS

1) Basic Education: academic heterogeneity and poor interactional experiences

Indicator 1 - Experiences in Basic Education.  
Indicator 2 - *Bullying*.  
Indicator 7 - *Unpreparedness of professors*.  
Indicator 8 - *Complicators related to ASD condition*.  
Indicator 9 - *Socio-emotional factors*.

2) Controversy between the interest in undergraduate studies and the lack of preparation of the university context

Indicator 2 - *Bullying*.  
Indicator 3 - *Importance of the course*.  
Indicator 4 - *Admission to undergraduate studies and ASD*.  
Indicator 5 - *University accessibility barriers*.  
Indicator 6 - *Struggle for permanence at the University*.  
Indicator 7 - *Unpreparedness of professors*.  
Indicator 9 - *Socio-emotional factors*.

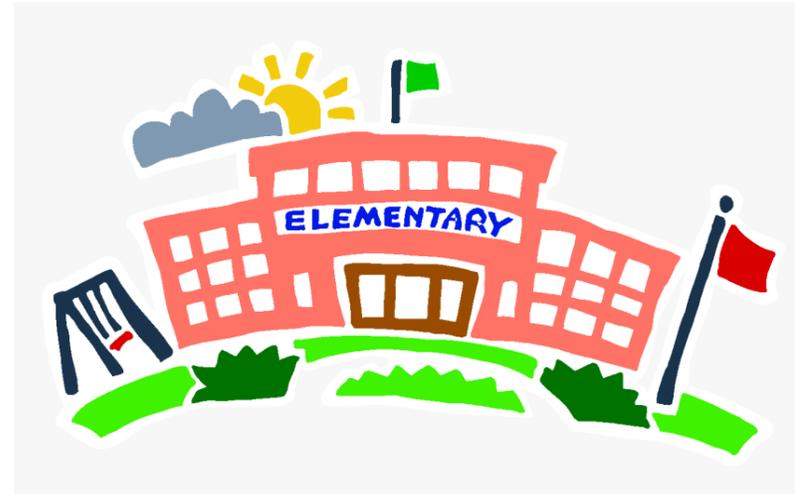
3) Need for change in the particular and social sphere

Indicator 2 - *Bullying*.  
Indicator 8 - *Complicators related to ASD condition*.  
Indicator 9 - *Socio-emotional factors*.  
Indicator 10 - *Suggestions for improvement at the University*.

## RESULTS

### 1) Basic Education: Academic heterogeneity and poor interactional experiences

- "In Elementary School I was doing well but there was always the part of the difficulty with social interaction. However, if the student gets a good grade and causes no trouble, why will the school worry?". Participant 4.



## RESULTS

2) Controversy between the interest in undergraduate studies and the lack of preparation for the university context

- **"I was doing something thinking of later working with botany, or ethnobotany that was my dream, but I couldn't finish the course there because of bullying. If it were only bullying I could go on with the courses, I would continue. But I couldn't deal with both of them". Participant 2.**



## RESULTS

### 3) Need for a change in the personal and social spheres

- **"So, not to have quarrels with the professor, many times I ended up hiding a little of that from them"** Participant 4.
- P3 mentioned in relation to the behavior of others: **"That sometimes I do not understand. I don't, I don't understand things"**.
- P4, in turn, reported absence in the behavior of **"empathy"**.
- Regarding cognitive skills, P2 and P5 discussed the **difficulty in organizing the content to be studied for the tests**; and P1, P2, P5 and P6 reported **concentration deficits** during the classes.
- P2 described: **"No, practically, I could not learn with any professor. Because it was all on the slides and it was so fast and I couldn't focus on either the speaking or the slides or take notes"**.
- In addition, one factor mentioned by P4 was that he was **"slow to write"**. To him, an extra time for completing tests would be essential.

## DISCUSSION

# LATE DIAGNOSIS



- It is worth mentioning that late diagnosis have been the focus of scientific studies and have shown positive applications regarding its knowledge by the individual with ASD (Olivati & Leite, 2017), so that feelings of relief with the confirmation of the diagnosis are reported, having given that some unexplained aspects of the past made sense (such as university bullying, job difficulties, persistent anxiety, and problems with friendships and love relationships) (Hickey, Crabtree, & Stott, 2017).

## DISCUSSION

# SOCIAL INTERACTION



- The difficulties with social interaction reported by all participants proved to be a complicating factor in the remaining at university. These difficulties have been observed and reported in the literature (Gelbar, Shefcyk, & Reichow, 2015; Olivati & Leite, 2017) and are compatible with ASD diagnostic characteristics (APA, 2013).
- These aspects, related to the pragmatic language deficits (Trevisan & Birmingham, 2015) are subject to training and intervention and Reports of university students with ASD can improve the communicative profile of adults with ASD (Ferreira, Teixeira, & Britto, 2010) contributing, consequently, to the success of these people in their college experience.

## DISCUSSION

# LEARNING DIFFICULTIES

- Associated with organizational (P2 and P4) and attentional (P1, P2 and P5) skills.
- It is well known in the literature that cognitive flexibility is one of the areas of executive functioning that poses learning challenges for students with ASD.
- Mental adaptation is difficult and, therefore, they may have difficulties in transitioning from one concept to another, which can make it difficult to pay attention and may complicate the reading and understanding of the curriculum contents expressed in Higher Education.
- Hence, it is inferred that the lack of attentional focus on a given object or situation, associated with problems with speed in the execution of classroom tasks, can lead to the difficulty of the concept appropriation, as observed by Gobbo and Shmulsky (2014), which agrees with the reports of P2 and P4.

## DISCUSSION

# ACCESSIBILITY

- All participants indicated the informational barrier as the main aspect found in their respective university units.
- The study conducted by **Pereira, Lima and Oliveira (2016)**, at a Federal University, analyzed how the access to information can assist people with disabilities in accessing and staying in Higher Education. Preliminary findings corroborate with the statements of the participants of this study, considering that the authors understand this aspect as far from being ideal.

## CONCLUSION

"Academic Experiences of University Students with ASD: Interpretative analysis of the reports"

- Students with ASD presented important reports about difficulties with social interactions, socio-emotional factors and academic challenges that impacted their stay at university.
- The interest in participating in a Higher Education course marked by persistence in the face of social, methodological and individual obstacles faced, demonstrated the importance of completing the course for this population.

# STRATEGIES POINTED BY THE STUDENTS

## Personal Sphere

- Disclosing the diagnosis during the admission process
- Asking for extra time (in the exams)
- Finding professors that are able to help with interactions
- Psychological support

## Environmental

- More information provided by universities
- More support from professors and students



Thank you!  
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