Revista AMAzônica, LAPESAM/GMPEPPE/UFAM/CNPq
ISSN 1983-3415 (versão impressa) - eISSN 2558 – 1441 (Versão digital)

Vol 18, Núm 1, jan-jun, 2025, pág. 709-738

Social Skills in Higher Education:
Evidence from Neurodivergent and Neurotypical University Students

Habilidades Sociais no Ensino Superior:
Evidências em Estudantes Universitários Neurodivergentes e Neurotípicos

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Abstract: The study evaluated differences in social skills between neurodivergent university students (with ADHD and/or ASD) and neurotypical students. The sample included 120 students, equally divided between the groups, with an average age of 19.90 years. The Social Skills Inventory 2 (SSI-2) measured five factors: assertive conversation, affective-sexual approach, expression of positive feelings, self-control/coping, and social resourcefulness. Neurodivergent students presented significantly lower scores in assertive communication, while the other dimensions did not show significant differences. The results indicate that compensation strategies can mitigate disparities, masking differences in other social skills. Despite this, specific deficits highlight the need for inclusive communication and social adaptation interventions. These results affect inclusive educational policies and institutional strategies for adaptation and academic success. Future studies should explore adapted interventions and cultural contexts to expand support for these students.
Keywords: Higher Education; Neurodiversity; Social Skill Inventory; ADHD.

Resumo: O estudo avaliou diferenças nas habilidades sociais de universitários neurodivergentes (com TDAH e/ou TEA) e neurotípicos. A amostra incluiu 120

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estudantes divididos igualmente entre os grupos, com média de idade de 19,90 anos. Utilizou-se o Inventário de Habilidades Sociais 2 (IHS-2), medindo cinco fatores como conversação assertiva, abordagem afetivo-sexual, expressão de sentimento positivo, autocontrole/enfrentamento e desenvoltura social. Estudantes neurodivergentes apresentaram escores significativamente mais baixos em comunicação assertiva, enquanto as demais dimensões não apresentaram diferenças significativas. Os resultados indicam que estratégias de compensação podem mitigar disparidades, mascarando diferenças em outras habilidades sociais. Apesar disso, déficits específicos destacam a necessidade de intervenções inclusivas focadas em comunicação e adaptação social. Tais resultados têm implicações para políticas educacionais inclusivas e estratégias institucionais voltadas à adaptação e sucesso acadêmico. Futuros estudos devem explorar intervenções adaptadas e contextos culturais para ampliar o suporte a esses estudantes.
Palavras-chave: Ensino Superior; Neurodiversidade; Inventário de Habilidades Sociais; TDAH.

Introduction

The increased access of neurodivergent students to higher education is a result of the ongoing fight for educational rights and inclusion (Silva, Schneider, Kaszubowski, & Nuernberg, 2020). Adapting to higher education requires students to acquire new behaviors, knowledge, and skills to meet academic and social demands (Ferraz, Lima, & Santos, 2020). According to Del Prette and Del Prette (2017), social skills (HS) are a set of behaviors that guide social competence, which is fundamental for interaction in social situations, such as starting and maintaining conversations, making requests, and responding to criticism. In addition, the university environment is not limited to the educational aspect focused on professional training; it also offers numerous opportunities for learning and social development, highlighting the importance of social skills and social competence in the university (Soares, Poubel, & dos Santos Mello, 2009). Some studies thus highlight the strong relationship between academic adaptation and HS (Bartholomeu, Nunes, & Machado, 2008; Soares & Del Prette, 2015).

In this context, the behaviors included in the HS category help in the mediation of social relationships and can improve both the quality of social experiences and academic performance, thus favoring adaptation to higher education (Soares, Monteiro, Medeiros, Maia, & Barros, 2021). As the student enters this environment, he is expected to expand his repertoire of interpersonal behaviors, which contributes to his autonomy, engagement in activities of interest, formation of bonds, and participation in groups (Soares et al., 2009).

Neurodivergent individuals exhibit cognitive profiles that deviate from established norms, reflecting the natural variation in neurological functioning. Neurodiversity encompasses conditions such as autism spectrum disorder (ASD), attention deficit disorders (ADHD), dyslexia, and dyscalculia, among others (Clouder et al., 2020). Creating an inclusive educational environment where neurodivergent students can actively participate, learn, and thrive requires intentional and sustained efforts. Beyond facilitating access to higher education, institutions must adopt public policies that ensure equal opportunities, necessary support systems, and full integration of these students. This includes fostering a more welcoming and diverse academic environment (Freitas, 2024). Additionally, such policies should promote flexible, student-centered pedagogical practices that address individual learning needs and facilitate the retention and successful completion of higher education for neurodivergent individuals.

The development of social skills plays a crucial role in fostering interpersonal relationships and contributing to personal and social growth. In school, a lack of social skills can lead to difficulties interacting with peers and teachers, which may hinder the inclusion process (Magalhães, 2023). To design effective institutional strategies and provide continuous support throughout students' academic journeys, it is essential to understand the profile of neurodivergent first-year students. Therefore, this study aims to explore the differences in social skills (SS) between neurotypical and neurodivergent incoming university students, specifically those diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) and Autism Spectrum Disorder (ASD). Additionally, the study seeks to identify which sociodemographic factors—such as gender and race/ethnicity—impact these social skills. The primary hypothesis is that there are significant differences in social skills between neurotypical and neurodivergent students.

Despite the growing interest in the theme of neurodiversity, including its developments in the context of university education, there is still a small number of national productions that discuss the entry and adaptation process of neurodivergent students to higher education, as well as which variables and other sociodemographic aspects would be implicated in this educational stage.

Social Skills

Del Prette and Del Prette (2017) initially show that the expression "Social Skills" has been constructed from two meanings. From one point of view, HS represents the theoretical-practical field, being broader and responsible for producing and applying psychological knowledge. On the other hand, more delimited, HS represents a central concept within the theoretical-practical field. The construction of knowledge about this field in Brazil was mainly guided by the approaches of Behavior Analysis and Cognitive-Behavioral Therapy with contributions at conceptual, empirical, and practical levels, such as the development of evaluation instruments, construction of training programs, characterization studies, and dissemination (Del Prette & Del Prette, 2017).

HS is conceptualized as a set of social behaviors with defined characteristics; it is "a descriptive construct of the social behaviors valued in a given culture with a high probability of favorable outcomes for the individual, his group and community that can contribute to a socially competent performance in interpersonal tasks" (Del Prette & Del Prette, 2017, p. 24). The behaviors described as HS are aggregated into different classes and subclasses, considering some common characteristic that permeates such behaviors, allowing their grouping and differentiation to another set, these behaviors being present in a person's repertoire and enabling them to deal with different contexts (Del Prette & Del Prette, 2017).

According to Del Prette and Del Prette (2017), social skills (HS) play a critical role in individual development across various social contexts. They identified ten main classes of social skills found in the literature: i) Communication (e.g. starting and maintaining conversations, praising and thanking praise, giving opinion); ii) Civility (e.g. greeting and/or responding to greetings, asking "please", thanking); iii) Make and maintain friendship (e.g. listen/confide, show kindness, keep in touch, express feelings); iv) Empathy (e.g. maintaining eye contact, expressing understanding, demonstrating willingness to help); v) Assertive (e.g. making and refusing requests, defending one's own rights and those of others, handling criticism); vi) Expressing solidarity (e.g. identify the other's needs, express support, engage in constructive social activities); vii) Manage conflicts and solve interpersonal problems (e.g. identify behaviors in themselves and others associated with the maintenance or solution of the problem, develop behavioral alternatives, propose solution alternatives); viii) Expressing affection and intimacy (dating, sex) (e.g., making invitations, showing

interest in the other's well-being, showing affection); ix) Coordinate the group (e.g., organize the activity, distribute tasks, ask questions, check to understand of problems); and, x) Public speaking (e.g., distributing the gaze to the audience, using audible tone of voice, asking/answering questions).

It is understood that social skills are present in different social environments, favoring interpersonal relationships. HS is a behavioral characteristic that is very present in higher education students, promoting the development and regulation of relationships, as well as facilitating academic adaptation (Soares & Del Prette, 2015).

Neurodivergences and Social Skills: characteristics of ASD and ADHD

Difficulties in social skills are central to the diagnosis of ASD (Agostini & Freitas, 2023). In the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) (*American Psychological Association* [APA], 2014), the diagnosis of Autism Spectrum Disorder comprises two major groups of characteristics: a) deficits in sociability, and b) restricted, stereotyped, and rigid patterns of interests, behaviors, or activities. According to the DSM-V (APA, 2014, p. 53), "The essential characteristics of autism spectrum disorder are persistent impairment in reciprocal social communication and social interaction." Deficits in social-emotional reciprocity, which include the ability to engage with others and share ideas and feelings, are quite evident in young children with the disorder. These children may demonstrate little or no ability to initiate social interactions and share emotions, as well as have reduced or absent imitation of other people's behavior. In adults without intellectual disabilities or language delays, difficulties in social-emotional reciprocity can manifest as difficulties in processing and responding to complex social cues, such as knowing when and how appropriately to participate in a conversation and what to avoid. Although compensatory strategies are developed for some social challenges, these people may still encounter difficulties when faced with new or unsupported situations.

ADHD, like ASD, is considered a risk factor for deficits in social skills (Freitas & Del Prette, 2013). For ADHD, it is seen as a relationship between decreased school performance and academic success, social rejection, and, in adults, lower professional performance, lower success, and attendance, in addition to a higher probability of unemployment and high levels of interpersonal conflict. Peer neglect is often associated with heightened symptoms of inattention, while peer rejection occurs due to pronounced symptoms of hyperactivity or impulsivity (APA, 2014). Although it is not

a diagnostic criterion, difficulties in relationships, conduct, and performance in social situations reinforce the challenges faced by people with ADHD throughout life, impacting academic, professional, and interpersonal success (family, affective-sexual, and work) (Rangel Júnior & Loos, 2011).

Social Skills in University Students

The university population has been widely studied for better descriptions and characterization of HS and/or to verify its relationships with other variables, considering that the academic environment requires a set of social behaviors, and the development of these skills provides a better academic adaptation (Soares & Del Prette, 2015). Within the broad set of HS actions, some skills are essential for students during the undergraduate period, such as offering and asking for help, public speaking, paying attention, following instructions, disagreeing and expressing opinions, and asking and answering questions, among others. Thus, these behaviors tend to favor the student with a good relationship in the classroom and good performance in the academic context (Del Prette & Del Prette, 2018).

It is seen that having good social skills to relate is important for an adequate adaptation to university academic life, especially in the first year of graduation. It should be noted that although the first year of college requires further adjustments, such skills should be representative throughout the entire academic journey due to the need for constant adjustment to the new educational context (Soares et al., 2021). These skills act as facilitators in the adaptive process by providing support for technical (educational-professional training) and social (interpersonal relationships) performance, which requires a progressive improvement of relationship skills, that is, a larger and more diversified repertoire of these skills, since higher education places university students in front of the most varied relational challenges (Soares & Del Prette, 2015).

Monteiro and Soares (2023) conducted a study to analyze the impact of social skills, social problem-solving, self-monitoring, self-efficacy, and coping strategies on the academic adaptation of students from public and private higher education institutions. The sample consisted of 637 students of both sexes, 115 (36.5%) men from public institutions and 72 (22.3%) from private institutions, with ages ranging from 18 to 38 years (M = 24.7; SD = 6.3), of various grades. The instruments used were the following: Social Problem Solving Inventory, Social Skills Inventory, Self-Monitoring

Scale, Academic Self-Efficacy Scale, Coping Strategies Inventory, and Academic Experiences Questionnaire (reduced). The analysis revealed that self-efficacy in academic management (40.9%) and self-affirmation in the expression of positive affect (13.7%) were the factors with the most significant impact on students' adaptation, both in public and private institutions, suggesting that these areas may be important focuses for interventions aimed at adapting to higher education. Furthermore, the authors point out that the student is learning to relate to others by creating connections with colleagues, professors, and other university members. This involves sharing and defending your ideas, respecting different opinions, solving problems, and adapting to the academic environment in terms of learning and social interaction (Monteiro & Soares, 2023).

The research developed by Soares et al. (2009) sought to investigate the relationship between social skills and academic experiences necessary for adaptation to the university environment, involving 200 Psychology course students from public and private institutions. The Social Skills Inventory and the Academic Experiences Questionnaire (QVA) adapted for Brazil were used. The results indicated that students from public institutions had a better academic adaptation than those from private institutions. In addition, a correlation was found between academic adaptation and social skills. For students from public institutions, social skills were more associated with the personal and contextual dimensions. In contrast, students from private institutions were more related to the dimension of academic achievement. This study shows that the mean scores in the total score and the different aspects of the Social Skills Inventory were similar for students from public and private institutions. This suggests that the type of institution (public or private) does not seem to affect students' social ability (Soares et al., 2009).

In another study, Soares et al. (2021) evaluated how academic expectations, motivation, and social skills influence adaptation to Higher Education. The sample consisted of 300 university students randomly selected from different courses and years of higher education. The selection included students from public and private institutions, aiming to represent a diversity of academic contexts and experiences. The sample was also balanced in terms of gender and age to ensure that the results were representative of a broader university audience. The instruments used were the Inventory of Academic Expectations, the Questionnaire of Motivation for Knowledge,

and the Scale of Social Skills. The results showed that high academic expectations and intrinsic motivation positively correlate with a better adaptation to the university environment. In contrast, social skills did not directly correlate significantly with this adaptation (Soares et al., 2021).

Despite the lack of correlation between social skills and academic adaptation, Soares et al. (2021) highlight the findings in the research by Soares et al. (2014), which suggest that greater social engagement of students is related to a greater probability of building rewarding interpersonal relationships at the university. This implies that a positive interpersonal relationship can make it easier for students to adapt and contribute significantly to academic success.

Bolsoni-Silva, Loureiro, Rosa, and Oliveira (2010) investigated to describe the social skills of university students throughout their undergraduate years and observe how these skills change over time. Eighty-five students of both sexes were evaluated in different years and shifts of the Industrial Design course using the Social Skills Questionnaire for University Students and the Social Skills Inventory (SSI). The results revealed significant differences between men and women, as well as between full-time and night shifts. The main differences were noted when comparing the first and second years with the following years, indicating that first-year students face more communication, expressiveness, and conflict resolution challenges, suggesting the need for more focused interventions in this period (Bolsoni-Silva et al., 2010).

Social Skills and Interpersonal Relations in Academic Adaptation

Interpersonal relationships refer to the associations between two or more people and can vary in duration. These interactions are evaluated by their ability to satisfy individual needs and generate the desired personal and social outcomes. The social impact of interactions is often judged as adequate or inadequate, and social skills are defined as the set of behaviors that enable adequate and adjusted social performance (Couto, Vandenberghe, Tavares, & Silva, 2012). A study showed that many incoming students prioritize building new interpersonal relationships. Over time, their professional identity develops through these groups of belonging, solidifying as they progress in their academic journey (Teixeira, Dias, Wottrich, & Oliveira, 2008).

For Couto et al. (2012), interactions between people are fundamental to all social processes, and this is the premise of the study that sought to analyze the relationship between these interactions and social skills, in addition to testing the

validity of the Interpersonal Relationships Checklist-II. The research involved 542 students from various higher education courses in southeastern Goiás, aged between 18 and 55 years (M = 21; SD = 5.48), who answered the Del Prette Social Skills Inventory and the Interpersonal Relations Checklist-II. The results showed that students with high social skills tended to adopt friendlier and more dominant interpersonal positions, while those with lower social skills showed attitudes of hostility and submission. In addition, participants with good social skills demonstrated a greater diversity of interpersonal positions. Social skills are positively correlated with friendly behaviors and negatively correlated with hostile and submissive behaviors, which confirms the validity of the Interpersonal Relationships Checklist-II. The results of Couto et al. (2012) show that effective social performance does not depend only on displaying specific interpersonal postures, such as simply being cordial, respectful, or accepting of others. A more sophisticated pattern is needed that involves coordinating these postures appropriately. In addition, the university environment is particularly complex, as individuals face various social demands. On the one hand, the fact that they are in university and are constantly evaluated academically suggests a significant need for social withdrawal to meet the study requirements. On the other hand, the same environment offers several incentives for exploratory behaviors, as it brings together people of different ages, origins, and cultures and strongly stimulates social interaction (Couto et al., 2012).

Building personal relationships is an impact factor for the development of the person and their well-being, being highlighted as an important marker in the process of adaptation and university experience, considering it relevant that the university becomes an environment of psychosocial development, new friendships allow exchanges of experiences with the creation and maintenance of an emotional support network beyond the family nucleus (Zanon et al., 2014). The distancing of previously established bonds makes the university student look for figures who can provide support to help in this transition period, thus building interpersonal relationships with their classmates and other members of the academic community who live experiences like their own (Teixeira et al., 2008).

During the course journey, some of these relationships become stronger and more lasting, establishing bonds of friendship with people who have more affinities (preferences, opinions, and other characteristics), forming a group of support, support,

and protection to face academic or personal difficulties (Santos, Oliveira, & Dias, 2015). For this to occur satisfactorily, university students must have an adequate and broad repertoire of social skills, which can help their academic and social performance (Soares et al., 2009).

With the above, exploring social skills and academic adaptation is essential to improve the experience of university students since these skills are vital to establishing relationships and integration in the university context. It is also essential to conduct direct research on including neurodivergent students to understand their specific needs and difficulties better, given the implications of diagnoses that usually present deficits in various areas of social skills, such as sharing attention and initiating and sustaining interactions.

Method

An exploratory study was carried out with comparison groups based on a quantitative descriptive-correlational cross-section, with sampling carried out with the inclusion of participants by convenience criterion, i.e., non-probabilistic.

Participants

The study included 120 university students from a private college, equally divided into two groups: (1) neurodivergent students diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) and/or Autism Spectrum Disorder (ASD) (n = 60); and (2) neurotypical students with no history of neurodivergence (n = 60). Participants with a clinical diagnosis of ADHD and/or ASD, confirmed by a medical report, and who were enrolled in higher education were included in the neurodivergent group. For the neurotypical group, participants without a history of neurodivergence diagnosis were considered, even though other neuropsychiatric conditions (anxiety, depression, etc.) were reported. Individuals who did not complete the instruments or presented inconsistencies in their answers were excluded. The selection of participants was non-probabilistic, using the convenience criterion, considering the accessibility and representativeness of neurodivergent students within the higher education institution where the study was conducted. The socio-demographic data and main characteristics of the participants are presented in Table 01.

The mean age was similar between the groups: 19.90 years (±3.40) for neurodivergent patients and 19.87 years (±2.72) for neurotypical patients. The

predominant age group was 18 years (38.3% in both groups). Regarding gender identity, the majority identified themselves as cisgender men (51.7% of neurodivergent men and 50.0% of neurotypical men), followed by cisgender women (40.0% and 43.3%, respectively). Regarding race/ethnicity, most self-declared themselves white (80.0% of neurodivergent and 68.3% of neurotypical).

Most participants entered higher education after the first attempt at the entrance exam (65.0% of neurodivergent patients and 78.3% of neurotypical patients). In addition, 56.7% of neurodivergent and 60.0% of neurotypical students are pursuing their first undergraduate degree, while 35.0% of neurodivergent and 30.0% of neurotypical students reported abandoning a previous course. Most participants are enrolled in the first semester (45.0% of neurodivergent and 38.3% of neurotypical).

Among neurodivergent participants, the majority (86.7%) had a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD), while 11.7% were diagnosed with ADHD and Autism Spectrum Disorder (ASD) in a combined way. Most neurodivergent patients reported using continuous medication (75.0%) and follow-up with external professional treatment (90.0%). In addition, 71.7% indicated that they received institutional pedagogical follow-up.

Table 01. Sociodemographic Data of the Sample

Variable	Neurodivergent (n = 60)	Neurotypical (n = 60)	Total (n = 120)
Mean Age (± SD)	19.90 ± 3.40	19.87 ± 2.72	-
Age Group (years)			
18	23 (38,3%)	23 (38,3%)	46 (38,3%)
19–21	28 (46,7%)	29 (48,3%)	57 (47,5%)
≥ 22	9 (15,0%)	8 (13,3%)	17 (14,2%)
Gender			
Male	31 (51,7%)	30 (50,0%)	61 (50,8%)
Female	24 (40,0%)	26 (43,3%)	50 (41,7%)
Non-Binary	5 (8,3%)	4 (6,7%)	9 (7,5%)
Race/Ethnicity			
White	48 (80,0%)	41 (68,3%)	89 (74,2%)
Non-White	12 (20,0%)	19 (31,7%)	31 (25,8%)
Admission Method			

Entrance Exam	39 (65,0%)	47 (78,3%)	86 (71,7%)
ENEM	14 (23,3%)	10 (16,7%)	24 (20,0%)
Diploma Transfer	7 (11,7%)	3 (5,0%)	10 (8,3%)
Undergraduate Course			
Design	36 (60,0%)	40 (66,7%)	76 (63,3%)
Computer Science	24 (40,0%)	20 (33,3%)	44 (36,7%)
Academic Status			
1th Undergraduate Degree	34 (56,7%)	36 (60,0%)	70 (58,3%)
Previously Abandoned Undergraduate Degree	21 (35,0%)	18 (30,0%)	39 (32,5%)
2nd Undergraduate Degree	5 (8,3%)	6 (10,0%)	11 (9,2%)
Diagnosis			
ADHD	52 (86,7%)	N/A	N/A
ADHD + ASD	7 (11,7%)	N/A	N/A
ASD	1 (1,6%)	N/A	N/A
Use of Continuous Medication	45 (75,0%)	N/A	N/A
Pedagogical Monitoring	43 (71,7%)	N/A	N/A

Note: ENEM = National High School Exam.

Instruments

Individual Characterization Questionnaire: A sociodemographic form developed to collect information such as gender, age, race, course, semester, among other data that can characterize the participant in the sample population.

Social Skills Inventory 2 (SSI-2) (Del Prette & Del Prette, 2018): it is characterized by being a self-report instrument aimed at assessing social skills, composed of 38 items aggregated into five factors: 1*) Assertive conversation* (12 items with inverted score, α = 0.934); 2) *Affective-sexual approach* (three items, α = 0.774); 3) *Expression of positive feeling* (eight items, α = 0,894); 4) *Self-control/Coping* (five items, α = 0.840) and 5) *Social resourcefulness* (six items, inverted score on two items, α = 0.840). Interpersonal relationship situations are described and skills are required to react to the situation experienced, assessing the frequency of occurrence via a five-point Likert-type scale ranging from zero (never or rarely) to four (always or almost always) (Del Prette *et al*., 2021). The maximum score achieved is one hundred and twenty points for the total scale. It is a widely disseminated instrument, as its

psychometric properties indicate an adequate assessment of Social Skills, presenting a good internal consistency index that supports its use in research.

Procedures

The research project was submitted to the analysis of the Research Ethics Committee of the Federal University of Pernambuco (CEP/UFPE) with favorable opinion number 6.150.196 (CAEE: 68636023.7.0000.5208), and in its development, all guidelines and other ethical standards and recommendations for conducting research with human beings in Brazil were observed. The people who submitted to the study were initially informed about the study and asked to sign the Informed Consent Form (ICF). In addition to these terms, the terms of Commitment and Confidentiality, Consent and Use of Data were signed by the researcher and the management responsible for the higher education institution, respectively.

The applications were flexible to suit the possibility of the students participating. Thus, individual and collective meetings were held at the educational institution itself. When the application was individual, the psycho-pedagogical support room was used; when it was collective, it was decided to use the classroom in the after-hours. The maximum number of participants in a group application was eleven students. The instruments were applied in a face-to-face format in a single session with an average duration of approximately 50 minutes.

Data analysis

Non-parametric statistical techniques were used to analyze the data, as the variables did not follow a normal distribution according to the Shapiro-Wilk and Kolmogorov-Smirnov tests ($p < 0.05$). Comparisons between the neurodivergent and neurotypical groups were performed using the Mann-Whitney (MW) test, which evaluates differences in the median scores of the Social Skills Inventory 2 (SSI-2) factors. In addition, analyses were performed based on sociodemographic variables, such as gender, race/ethnicity, course, and form of admission to higher education, using the Kruskal-Wallis test to identify possible differences between categories of these variables. All analyses were conducted using SPSS version 25 software, adopting a significance level of $p < 0.05$.

Results

Table 02 details Spearman's correlation analysis (ρ) for the Social Skills Inventory 2 (SSI-2) with the neurodivergent and neurotypical groups. In the **neurodivergent group**, significant correlations were identified between all five factors and the instrument's general factor. All of these correlations were positive and ranged from moderate to strong (ρ ≥ 0.640 and ≤ 0.866; p = .000). Among factors, the most notable correlations, with moderate values, were between F5. Social resourcefulness and: F1. Assertive conversation (ρ = 0.672; p = .000); F2. Affective-sexual approach (ρ = 0.613; p = .000); and, F3. Expression of positive feeling (ρ = 0.588; p = .000). The correlation between F1. Assertive conversation and F2. The affective-sexual approach had a moderate value (ρ = 0.514; p = .000). Other coefficients also showed statistical significance but with values lower than those highlighted.

In the correlation analyses for the **neurotypical group**, it was observed that the significant correlation with the General Factor of the instrument was manifested with all factors, especially the strong correlations with F1. Assertive conversation (ρ = 0.808, p = .000) and F5. Social resourcefulness (ρ = 0.816; p = .000). A F5. Social resourcefulness showed positive and moderate correlations with F1. Assertive conversation (ρ = 0.649; p = .000) and with F3. Expression of positive feeling (ρ = 0.513; p = .000). Other significant correlations were found between the factors, although with values of ρ < 0.4.

These results highlight that Assertive Conversation (F1) and Social Resourcefulness (F5) play fundamental roles in constructing global social skills in neurotypicals and neurodivergent. The strong association between these factors and the General Factor suggests that interventions focused on developing assertiveness and social resourcefulness may effectively promote broader social skills in both groups.

Table 02. SSI-2 Spearman's Correlation Matrix (ρ) - Neurodivergent and Neurotypical Groups

SSI-2		F1. CA	F2. AAS	F3. ESP	F4. AE	F5. DS	GF	Neurotypical Group
F1. Assertive Conversation	ρ	**1**	**,321***	**,314***	,139	**,649****	**,808****	F1. CA
	p		,012	,014	,288	,000	,000	
F2. Affective-Sexual Approach	ρ	**,514****	**1**	**,288***	**,290***	**,465****	**,594****	F2. AAS
	p	,000		,026	,024	,000	,000	
F3. Expression of Positive Feeling	ρ	**,332****	**,361****	**1**	,161	**,513****	**,625****	F3. ESP
	p	,010	,005		,219	,000	,000	
F4. Self-Control/Coping	ρ	**,444****	**,446****	**,378****	**1**	**,394****	**,476****	F4. AE
	p	,000	,000	,003		,002	,000	
F5. Social resourcefulness	ρ	**,672****	**,613****	**,588****	**,483****	**1**	**,816****	F5. DS
	p	,000	,000	,000	,000		,000	
General Factor	ρ	**,866****	**,706****	**,640****	**,660****	**,822****	**1**	FG
	p	,000	,000	,000	,000	,000		
Neurodivergent Group		F1. CA	F2. AAS	F3. ESP	F4. AE	F5. DS	GF	

Data analysis was conducted using non-parametric tests, such as the Mann-Whitney test (MW) and the Kruskal-Wallis test (KW), due to the non-normal distribution of the variables identified by the Shapiro-Wilk test ($p < 0.05$). The main findings regarding differences in Social Skills Inventory 2 (SSI-2) scores between the neurodivergent and neurotypical groups are presented below, in addition to comparisons based on sociodemographic variables, such as gender, race/ethnicity, course, and form of admission to higher education.

The results in Table 03 indicate that neurodivergent students performed significantly worse in Assertive Conversation (F1) compared to neurotypical students. Specifically, neurodivergent participants had a mean score of 27.40 (SD = 8.85), while neurotypical participants scored 32.15 (SD = 7.36), resulting in a statistically significant difference ($Z = -3.019$; $p = 0.003$).

No statistically significant differences were found between the groups for the other factors evaluated. This indicates that, based on the data collected, there is insufficient evidence to affirm that the groups differ in most social skills assessed. However, some interesting trends have been observed. In the Social Resourcefulness factor (F5), for example, the neurodivergent group obtained mean scores of 10.57 ± 5.20, while the neurotypical group presented 12.52 ± 4.96, resulting in a mean

difference of 1.95 points (Z = -1.867; p = 0.062). Although this difference was not statistically significant, it suggests a slight bias favoring the neurotypical group.

In summary, the results indicate a significant difference only in the Assertive Conversation factor (F1), with neurodivergent students presenting lower performance. Although there is no statistical significance in the other factors, the trend observed in the Social Resourcefulness factor may deserve attention in future studies.

Table 03. Mann-Whitney U test for comparison of neurodivergent and neurotypical groups in SSI-2 and their factors with mean and standard deviation values

	Neurodivergent		**Neurotypical**			
	M±DP	***Mean Rank***	***M±DP***	***Mean Rank***	**Z**	**p**
F1. Assertive conversation	**27,40±8,85**	**50,93**	**32,15±7,36**	**70,08**	**-3,019**	**,003**
F2. Affective-sexual approach	4,93±2,91	62,94	4,62±2,92	58,06	-,774	,439
F3. Expression of positive feeling	21,87±5,25	58,68	22,57±4,52	62,33	-,576	,564
F4. Self-control/coping	11,02±3,78	60,97	10,93±3,70	60,03	-,147	,883
F5. Social resourcefulness	10,57±5,20	54,58	12,52±4,96	66,42	-1,867	,062
SSI-2 Overall Factor	66,63±16,79	56,09	72,10±13,45	64,91	-1,389	,165

Based on the sociodemographic data of the sample, such as gender, race/ethnicity, course enrolled, form of admission to higher education and preference for the course enrolled, comparisons were made between groups in order to verify whether these variables can influence the differentiation of students' social skills.

Table 4 shows the results of the comparisons between groups with the gender variable. To this end, the binary male and female data were considered. Thus, it was decided not to include non-binary responses due to the low number of respondents and reduced statistical influence. In the gender comparison within each group, no statistically significant differences were observed in any of the SSI-2 factors, both for neurodivergent and neurotypical students.

Table 04. Mann-Whitney U test to compare the neurodivergent and neurotypical groups in terms of female gender (*n* = 24; *n* = 26) and male (*n* = 31; *n* = 30) in SSI-2 and its factors with mean and standard deviation values, MR (mean rank), Z, and p-value

SSI-2	Group	Female		Male		Z	p
		M±DP	*MR*	*M±DP*	*MR*		
F1. Assertive conversation	Neurodivergent	26,54±8,98	25,17	29,45±8,16	30,19	-1,156	,247
	Neurotypical	32,23±7,39	28,52	32,40±7,26	28,48	-,008	,993
F2. Affective-sexual approach	Neurodivergent	4,38± 2,73	24,48	5,48± 3,06	30,73	-1,446	,148
	Neurotypical	3,85± 2,20	25,31	5,33± 3,45	31,27	-1,372	,170
F3. Expression of positive feeling	Neurodivergent	21,75±4,80	26,65	22,55±5,34	29,05	-,553	,580
	Neurotypical	23,08±3,07	29,37	22,33±5,61	27,75	-,371	,711
F4. Self-control/coping	Neurodivergent	11,21± 3,98	27,90	11,13±3,61	28,08	-,043	,966
	Neurotypical	10,27±3,75	25,73	11,63±3,70	30,90	-1,188	235
F5. Social resourcefulness	Neurodivergent	10,58± 5,67	27,40	11,23±4,89	28,47	-,247	,805
	Neurotypical	11,50±4,63	25,60	13,33±4,97	31,02	-1,245	213
General Factor	Neurodivergent	65,13±16,88	25,31	70,23±15,59	30,08	-1,095	,273
	Neurotypical	71,00±12,15	27,69	73,80±14,62	29,20	-,345	,730

Table 05 shows the results for the race/ethnicity variable in comparison between groups. The Mann-Whitney test analysis did not show significant differences between the groups. Non-white students obtained higher mean ranks in almost all factors; some differences exceeded five points, but these results were not statistically different.

Table 05. Mann-Whitney U test to compare the neurodivergent and neurotypical groups in terms of white race/ethnicity (*n* = 48; *n* = 41) and non-white (*n* = 12; *n* = 19) in SSI-2 and its factors with mean and standard deviation values, MR (mean rank), Z, and p-value

SSI-2	Group	Race/Ethnicity				Z	p
		White		Non-white			
		M±DP	*MR*	*M±DP*	*MR*		
F1. Assertive conversation	Neurodivergent	26,42±9,25	28,48	31,33±5,74	38,58	-1,796	,072
	Neurotypical	31,83±7,33	29,16	32,84±7,58	33,39	-,877	,381
F2. Affective-sexual approach	Neurodivergent	4,67± 2,86	28,98	6,00± 2,98	36,58	-1,359	,174
	Neurotypical	4,34± 2,90	28,78	5,21± 2,95	34,21	-1,128	,259
F3. Expression of positive feeling	Neurodivergent	21,69±5,41	30,00	22,58±4,73	32,50	-,445	657
	Neurotypical	23,10±3,80	32,11	21,42±5,73	27,03	-1,052	293
	Neurodivergent	10,88±3,84	29,98	11,58±3,65	32,58	-,464	643

F4. Self-control/coping	Neurotypical	10,68±3,77	29,77	11,47±3,58	32,08	-,479	,632
F5. Social resourcefulness	Neurodivergent	10,23±5,29	29,47	11,92±4,81	34,63	-,917	,359
	Neurotypical	12,46±4,96	30,04	12,63±5,09	31,50	-,303	,762
General Factor	Neurodivergent	65,02±17,38	28,81	73,08±12,85	37,25	-1,498	,134
	Neurotypical	71,83±12,65	29,82	72,68±15,39	31,97	-,445	656

Concerning the undergraduate course, as shown in Table 06, the differences in social skills oscillated between the course groups, as well as between those who have or do not have neurodivergence. However, the comparative analysis did not show statistically significant differences between groups with the sociodemographic variable.

Table 06. Mann-Whitney U test for comparison of the neurodivergent and neurotypical groups in terms of design course (*n* = 36; *n* = 40) and computer science (*n* = 24; *n* = 20) in SSI-2 and its factors with mean and standard deviation values, MR (mean rank), Z and p-value

		Course					
		Design		Computation			
SSI-2	Group	*M±DP*	*MR*	*M±DP*	*MR*	With	p
F1. Assertive conversation	Neurodivergent	26,53±8,62	28,64	28,71±9,21	33,29	-1,013	,311
	Neurotypical	32,28±7,95	30,85	31,90 ±6,19	29,80	-,220	826
F2. Affective-sexual approach	Neurodivergent	4,75± 2,62	29,38	5,21± 3,33	32,19	-,616	538
	Neurotypical	4,20± 2,70	28,29	5,45 ±3,23	34,93	-1,397	,162
F3. Expression of positive feeling	Neurodivergent	22,11±4,82	30,97	21,50±5,93	29,79	-,257	,797
	Neurotypical	22,70±3,89	30,01	22,30±5,69	31,48	-,307	,759
F4. Self-control/coping	Neurodivergent	10,92±3,96	29,99	11,17±3,58	31,27	-,280	,779
	Neurotypical	11,00±3,68	30,76	10,80±3,82	29,98	-,165	,869
F5. Social resourcefulness	Neurodivergent	10,06±4,94	28,61	11,33±5,60	33,33	-1,029	,304
	Neurotypical	12,53±4,85	30,86	12,50±5,29	29,78	-,228	,820
General Factor	Neurodivergent	65,75±15,45	29,68	67,96±18,88	31,73	-,445	656
	Neurotypical	71,83±12,97	30,25	72,65±14,68	31,00	-,157	,875

Finally, Table 07 shows the last group of sociodemographic variables. The Kruskal-Wallis test was performed to verify whether the values presented demonstrate statistical significance. The analysis showed that the form of admission to higher education does not imply effects on performance on social skills, neither in neurodivergent nor in neurotypical.

Revista AMAzônica, LAPESAM/GMPEPPE/UFAM/CNPq
ISSN 1983-3415 (versão impressa) - eISSN 2558 – 1441 (Versão digital)

Table 07. Kruskal-Wallis test for comparison of the neurodivergent (ND) and neurotypical (NT) groups regarding the form of vestibular admission (*n* = 31; *n* = 34), ENEM (*n* = 14; *n* = 17) and transfer/diploma (*n* = 15; *n* = 9) in SSI-2 and its factors with mean and standard deviation values, MR (mean rank), χ^2, p-value, and df = 2

		Entrance Exam		ENEM		Diploma Transfer		K-W	
SSI-2	**Group**	***M±DP***	***MR***	***M±DP***	***MR***	***M±DP***	***MR***	χ^2	**p**
F1. CA	ND	27,03±10,01	29,76	25,79±7,75	27,39	29,67±7,13	34,93	1,471	,479
	NT	33,50±7,88	33,50	31,00±6,72	28,41	29,22±5,74	23,11	2,874	,238
F2. AAS	ND	4,77±3,08	29,35	4,71±2,94	29,71	5,47±2,61	33,60	,644	,725
	NT	4,91±2,98	32,13	3,71±4,52	25,44	5,22±2,68	33,89	2,091	,352
F3. ESP	ND	21,58±5,73	29,89	22,00±5,94	31,21	22,33±3,55	31,10	,080	,961
	NT	22,65±4,62	30,41	22,24±3,18	30,06	22,89±4,64	31,67	,052	,974
F4. AE	ND	10,29±4,04	26,95	11,14±2,93	30,57	12,40±3,75	37,77	3,910	,142
	NT	10,68±3,99	29,24	11,12±2,86	31,03	11,56±3,77	34,28	,621	,733
F5. DS	ND	10,10±5,64	28,89	10,43±4,76	30,75	11,67±4,80	33,60	,744	,689
	NT	12,62±5,05	30,31	12,59±5,05	31,18	12,00±5,00	29,94	,039	,981
GF	ND	65,19±18,90	29,15	64,71±16,23	28,39	71,40±12,03	35,27	1,509	,470
	NT	73,74±14,77	32,29	69,65±12,16	27,41	70,56±10,54	29,56	,918	,632

Note: F1. Assertive Conversation (AC); F2. Affective-Sexual Approach (AAS); F3. Expression of Positive Feeling (ESP); F4. Self-control/coping (NA); F5. Social Resourcefulness (SD). General Facto (GF). ENEM = National High School Exam,

Discussion

The results of this study revealed significant differences exclusively in factor F1: **Assertive Conversation** in the self-reported social skills between the two groups—neurodivergent and neurotypical—according to statistical analyses. The statistically significant difference in F1 suggests that neurodivergent students experience greater difficulties in the communicative domain, negatively impacting their social interactions and ability to engage in conversations effectively. Deficits in language and communication exacerbate the challenges neurodivergent students, such as those

with ASD, face in building and maintaining social relationships. These difficulties in social interaction significantly hinder their adaptation and retention in university settings, as highlighted by Olivati and Leite (2019).

Additionally, Dourado et al. (2019) emphasize that adults with ADHD often encounter challenges in social, interpersonal, and intrapersonal areas. These challenges manifest as reduced social skills, antisocial behaviors, and impairments in academic performance and overall dynamism. However, in our study, the differences in the mean ranks of the overall factor of the SSI-2, as well as other factors, were not significant enough to conclude that they were not due to chance. Consequently, the hypotheses suggesting that neurodivergent individuals exhibit lower performance in general and specific social skills (except for Assertive Conversation) were not confirmed. This highlights the need for further research to understand these skills and the potential compensatory mechanisms within neurodivergent populations.

Previous studies, such as those by Rangel Júnior and Loos (2011), identified negative impacts on the psychosocial development of adolescents and young adults diagnosed with ADHD, including low self-esteem, social inhibition, and difficulties expressing feelings. These findings are closely related to challenges in assertive communication. However, the same study suggests that the school environment provided opportunities for these individuals to develop coping strategies, autonomy, and self-awareness regarding their limitations. Such strategies may enable neurodivergent individuals to create trade-offs that help bridge the gap in social skills when compared to neurotypical peers (Legault et al., 2021).

Compensatory strategies, such as social camouflage, are used by neurodivergent individuals to overcome social and communication challenges. These strategies involve complex processes that facilitate engagement in social cognition, despite significant internal difficulties (Rocha *et al.*, 2024).

Social cognition is a fundamental aspect of everyday life, crucial in how we interact and relate to others. As social beings, humans constantly analyze, interpret, and decode the social signals of those around them (Morellini *et al.*, 2022). For example, to communicate effectively, it is necessary to recognize and interpret the social signals of the interlocutor and adapt one's behavior accordingly (Bolsoni-Silva *et al.*, 2010). Social skills, in turn, are learned behaviors that allow individuals to

effectively deal with the demands of interpersonal situations. A good repertoire of social skills depends on efficient social cognition (Canela, Buadze, Dube, Eich, & Liebrenz, 2017; Del Prette & Del Prette, 2017). In this way, HS enables greater involvement in curricular activities, engagement in the new teaching modality, and success in professional goals (Soares et al., 2019).

Soares and Del Prette (2015) explain that differences between public and private institutions influence the repertoire of skills and academic experiences. We evaluated students from private institutions in our sample and compared neurodivergent and neurotypical people. We found no significant differences between these two groups in most SSI-2 factors. On the other hand, one study demonstrated that in a sample of PWD participants, ADHD, Autism, and mixed behavior problems were the main predictors of deficit in HS in university students from public and private institutions (Freitas & Prette, 2014). Another study found that university students from private institutions performed better in social skills and more positive coping strategies, while public institutions stood out in problem-solving skills (Monteiro & Soares, 2023). Soares *et al.* (2021) investigated the relationship between academic expectations, motivation, social skills, and academic adaptation of university students from public and private institutions. The results showed that academic expectations and motivation significantly impact academic adaptation, while social skills had a limited impact. Academic adaptation seems more related to the intrinsic motivation for knowledge; in continuity, the authors suggest the creation of challenging learning environments and support for developing social skills (Soares *et al.*, 2021).

A systematic review highlighted the paucity of studies on the development of social skills in students with ASD in regular education. The study highlighted that HS contributes to inclusion by facilitating interpersonal interactions and reducing disruptive behaviors. The author signaled the need for continued teacher training and structural difficulties that hinder full inclusion (Magalhães, 2023). Similarly, in university education, few studies on social skills in neurodiverse adults are yet available. In our study, we considered participants diagnosed with ADHD and/or ASD as part of the neurodivergence spectrum. In the sample, we included students exclusively with ASD, those diagnosed with both ASD/ADHD, or solely with ADHD. This sampling bias may not allow for the generalization of the results. However, it provides important

epistemological elements when added to the lack of statistically significant differences in most social skills between neurotypicals and neurodivergents. Considering that some uninvestigated variables (e.g., compensation) may have mitigated the differences, we need to move from an epistemic perspective that considers neurodivergent features, including ASD and ADHD, as pathological to a neurodiversity perspective

Neurodiversity is an umbrella term that encompasses several traditionally pathologized conditions, including autism spectrum, attention deficit hyperactivity disorder, dyspraxia, dyslexia, dyscalculia, high abilities, and Tourette's syndrome (Clouder *et al.*, 2020). ASD and ADHD are distinct conditions with shared etiological factors, high heredity, and often co-occur. However, traditional tools may be insufficient to adequately differentiate symptoms, as well as psychosocial interventions, which, despite the positive impact, vary widely in effectiveness among different individuals and conditions (Antshel & Russo, 2019). In this sense, with a focus on moving away from the perspective that considers people with disabilities as deficient by challenging the notion of typical and atypical mental capacity, neurodiversity refers to a different rather than erroneous connection to the world (Armstrong, 2015). McKee (2023) argues that neurodivergence, rather than being seen as a disability, reflects unique ways of organization and cognitive processing.

According to Armstrong (2015) and Legault *et al.* (2021), neurodiversity refers to natural human cognitive variation, while neurodivergence is defined as deviations from culturally established cognitive norms. From a paradigm in which cognition depends on dynamic interactions between brain, body, and environment (known as embodied, extended, embedded, and enactive cognition (4E), cognitive deficits often reflect environmental maladjustments rather than intrinsic failures. Neurodivergence is not just a biological condition, but a political construct intertwined with systemic inequalities. In addition, neurodivergent people commonly have their experiences and perceptions disregarded (testimonial epistemic injustice) and inadequate representation of experiences in dominant cultural concepts, for example, sensory overload in autistic people (hermeneutic epistemic injustice). Thus, it is not uncommon for neurodivergent people who spend most of their time in neurotypical environments

to demonstrate similar results in standardized tasks due to adaptation strategies, masking differences (Legault *et al.*, 2021).

Among the challenges in the inclusion of neurodiverse subjects, stigma and cultural barriers prevent the support search. However, alternative teaching and assessment methods for different profiles, teacher training, accessible materials, and assistive technologies based on universal design can reduce academic difficulties such as lack of concentration and impaired performance (Clouder *et al.*, 2020). Another study analyzed the experiences of six university students with ASD, highlighting challenges such as limited social interaction, lack of accessibility, and teacher unpreparedness (Olivati & Leite, 2019). In addition, a few initiatives include neurodiverse individuals as co-authors of the design and technologies for neurodiversity, specifically ADHD, addressing it as a problem to be corrected (Spiel, Hornecker, Williams, & Good, 2022). Another survey showed that most students (64%) had never heard of "neurodiversity." The students investigated proposed that the campus should have greater accessibility, educational opportunities, more significant support, and promote a change in perception. The research highlighted the role of undergraduate courses in providing "first exposure" to the topic (Castleman, Jarvinen, & Jarvinen, 2024). Soares and Del Prette (2015) indicate that institutional and pedagogical changes are necessary to promote inclusion and academic success. Freitas (2024) points out that public policies for inclusion in higher education for neurodivergent people and/or people with disabilities, such as quotas and federal programs, partially meet the demands, as attitudinal, architectural, and communicational obstacles limit full inclusion and curricular reformulation is needed to expand access for neurodiverse students.

While compensatory strategies can balance performance in specific contexts, they do not guarantee equal access or ability. Although the SSI-2 was used in this study, its structure may overlook qualitative aspects of how neurodivergent individuals experience tasks and contexts. This may hide differences that would be relevant but are not translated into the data (Legault et al., 2021). Social skills, such as assertiveness and effective communication, facilitate adaptation, while the university environment provides opportunities to develop these skills. Specific training has shown a positive impact on the development of these skills. Neurodivergence is negatively

associated with conversational social skills in the workplace. However, boundary-spanning activities mitigate these negative effects by promoting social skills among neurodivergent individuals (van Rijswijk, Curşeu, & van Oortmerssen, 2024). Canela et al. (2017) analyzed the strategies and compensation developed by adults with ADHD. They classified them into five categories: organizational (lists, apps, routine), motor (exercises, stress toys), attentional (environments with reduced stimulation), social skills (avoiding rigid commitments, socializing in large groups to reduce negative attention, and exploring charisma) and psychopharmacological strategy (use of caffeine, cannabis, medications to relieve the symptoms). In addition, many participants perceived typical ADHD symptoms as positive skills when adapted to the proper contexts. Behavioral studies that evaluate the contextual variables' influences help understand how HS is effectively used, as university students do not always emit a specific social skill competently, obtaining problem-solving and social reinforcement (Bolsoni-Silva et al., 2010). In our study, 75% of neurodivergent participants used medications, as well as 71.7% participated in pedagogical follow-up, elements that can reduce disparities in HS between groups.

The analysis of sociodemographic variables such as gender did not reveal significant differences in the development of social skills and their possible influences. On the other hand, the findings of Del Prette et al. (2004 cited in Bolsoni-Silva et al., 2010) and Couto et al. (2012), showed that men tend to demonstrate greater ability in most of the dimensions evaluated, especially in the factors of coping and self-affirmation with risk, communication and social resourcefulness, and self-control of aggressiveness, while women stand out in social skills related to affection. In our study, the absence of difference does not mean there is no difference, i.e., there may be a real difference, but the study was not powerful enough to detect it. In this sense, using multiple assessment instruments as well as larger samples can allow a more complete understanding of social skills, considering the nuances of gender.

No statistically significant differences were observed when the race/ethnicity variable was analyzed. Differences in social skills were also not observed based on undergraduate coursework. No statistically significant differences were found regarding the type of admission to Higher Education. Social and cultural norms may influence how these aspects are developed and perceived, suggesting the need for

specific approaches to support neurodivergent students of different genders, especially in promoting communication skills and social interaction. For example, previous experience and adaptation to the university environment can positively influence the development of skills, as seen by Bolsoni-Silva et al. (2010), an improvement in the way students "express negative feelings" and "criticize" as they progress through the course.

Even though the participants are from the initial semesters in our research, it is understood that students who have already gone through other institutions or courses may have developed additional social skills that facilitate the transition and integration into new academic environments. Recognizing and supporting students' previous experience can contribute to a better development of social skills. It is important to consider that most research on social skills in university students focuses on specific courses and convenience samples, which limits the generalization of the results to the entire population of private university students

Limitations

This study presents limitations that affect its generalizability. Conducted in a single private institution, the findings may not represent the broader university population. Furthermore, the neurodivergent sample included only individuals with ADHD and combined ADHD/ASD diagnoses, preventing an isolated analysis of ASD. In addition, the quantitative methodology was not triangulated with qualitative methods that could deepen the understanding of the participants' experiences. The study also faces limitations regarding diversity, with underrepresentation of non-binary genders and a predominantly white sample. Future research should aim for more inclusive sampling to better represent diverse demographic groups. The lack of measurement of the compensatory strategies used by neurodivergent individuals represents another significant limitation, potentially masking important differences in social skills. These restrictions do not invalidate the results, but they do require caution in interpretation and suggest the need for more comprehensive future investigations.

Conclusion

This study highlights the critical need for targeted interventions to improve assertive communication skills in neurodivergent university students, particularly those with ADHD and/or ASD. While significant differences were observed only in the 'Assertive Conversation' (F1) factor, this finding underscores a key area of social interaction that demands attention in higher education settings. Difficulty expressing oneself assertively can affect interpersonal interactions, academic engagement, and participation in collaborative activities, which are essential elements in higher education.

On the other hand, the absence of statistically significant differences in the other factors suggests that compensatory strategies, pedagogical support, and individual characteristics may mitigate deficits in other social skills areas among neurodivergent students. This leveling of social skills underscores the adaptability of these individuals and the potential effectiveness of resources already available in the university environment.

Despite this, the study raises questions about the need for specific interventions to improve performance in more challenging areas, such as assertive conversation, and the importance of inclusive educational policies. Promoting university environments that value cognitive diversity is essential to ensure equal opportunities for neurodivergent students. Combined with teacher training and the adoption of inclusive pedagogical strategies, this approach can significantly enhance academic success Promoting university environments that value cognitive diversity is essential to ensure equal opportunities for neurodivergent students. Combined with teacher training and the adoption of inclusive pedagogical strategies, this approach can significantly enhance academic success. Overall, our study reinforces the importance of an inclusive and tailored approach in higher education, recognizing both the challenges and strengths of neurodivergent students.

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Recebido: 12.12.2024 **Aprovado: 20.12.2024** **Publicado: 01.01.2025**

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