








PORTUGUESE ADOLESCENTS' ATTITUDES TOWARDS PEERS WITH DISABILITIES

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Abstract

This study aims to explore the attitudes of adolescents toward peers with disabilities, as well as its relationship with sociodemographic and psychological variables and contact experience. A total of 190 students, between 12 and 17 years old, participated in this study. Data collection was made through a sociodemographic questionnaire, the Chedoke-McMaster Attitudes Towards Children with Handicaps Scale, the Basic Empathy Scale, the Rosenberg Self-Esteem Scale and the Students' Life Satisfaction Scale. Results suggest that the attitudes of adolescents towards peers with disabilities are generally positive. Female, younger students and students who have contact with persons with disabilities out of school tend to have more positive attitudes. Empathy was positively correlated with attitudes.

ATTITUDES • SOCIAL INCLUSION • EMPATHY

Received on: JULY 7, 2022 | Approved for publication on: JULY 26, 2023



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ATTITUDES DOS ADOLESCENTES PORTUGUESES FACE AOS PARES COM DEFICIÊNCIA

Resumo

Este estudo pretende explorar as atitudes dos adolescentes face aos pares com deficiência e analisar sua relação com variáveis sociodemográficas e psicológicas e experiência de contacto. Participaram 190 alunos, com idades entre 12 e 17 anos. Recorreu-se a um questionário sociodemográfico, à Chedoke-McMaster Attitudes Towards Children with Handicaps Scale, à Escala de Empatia Básica, à Escala de Autoestima de Rosenberg e à Escala de Satisfação Global com a Vida. Os resultados indicaram que as atitudes dos adolescentes são globalmente positivas. As adolescentes, os alunos mais novos e os que relataram ter contacto com pessoas com deficiência fora da escola apresentaram atitudes mais positivas. Registaram-se correlações positivas entre as atitudes e a empatia.

ATTITUDES • INCLUSÃO SOCIAL • EMPATIA

ACTITUDES DE LOS ADOLESCENTES PORTUGUESES HACIA LOS PARES CON DISCAPACIDAD

Resumen

Este estudio pretende explorar las actitudes de los adolescentes hacia sus pares con discapacidad y analizar su relación con variables sociodemográficas, psicológicas y la experiencia de contacto. Participaron 190 alumnos, con edades entre los 12 y los 17 años. Se utilizó un cuestionario sociodemográfico, la Chedoke-McMaster Attitudes Towards Children with Handicaps Scale, la Escala de Empatía Básica, la Escala de Autoestima de Rosenberg y la Escala de Satisfacción Global con la Vida. Los resultados indicaron que las actitudes de los adolescentes son globalmente positivas. Mujeres adolescentes, los alumnos más jóvenes y los que reportaron tener contacto con personas con discapacidad fuera de la escuela tuvieron actitudes más positivas. Se registraron correlaciones positivas entre las actitudes y la empatía.

ACTITUDES • INCLUSIÓN SOCIAL • EMPATÍA

ATTITUDES DES ADOLESCENTS PORTUGAIS À L'ÉGARD DE LEURS PAIRS SITUATION DE HANDICAP

Résumé

Cette étude vise à examiner les attitudes des adolescents à l'égard de leurs pairs handicapés et à analyser leur relation avec des variables sociodémographiques et psychologiques et l'expérience de contact. 190 élèves, entre 12 et 17 ans, y ont participé. Un questionnaire sociodémographique a été utilisé, ainsi que l'échelle Chedoke-McMaster des attitudes envers les enfants en situation de handicap, l'échelle de base de l'empathie, l'échelle de l'estime de soi de Rosenberg et l'échelle de satisfaction globale de vie. Les résultats indiquent que les attitudes des adolescents sont globalement positives. Femmes adolescentes, les élèves les plus jeunes et ceux qui ont déclaré avoir des contacts avec des personnes handicapées en dehors de l'école ont manifesté des attitudes plus positives. Des corrélations positives ont été observées entre les attitudes et l'empathie.

ATTITUDES • INCLUSION SOCIALE • EMPATHIE

IN RECENT DECADES, PROMOTING MORE INCLUSIVE SCHOOLS HAS BECOME A PRIORITY for educational systems, leading to changes in policies and educational practices. The World Conference on Special Needs Education held in 1994 in Salamanca has been a trigger for creating more inclusive schools. The Salamanca Statement highlights as a core principle of inclusive schools that students can learn together, regardless of their characteristics, potential, or limitations. It also emphasizes the relevance of including students with special educational needs in regular schools to change attitudes towards diversity through education for all as the foundation for a just society and combating discriminatory attitudes (Organização das Nações Unidas para a Educação, a Ciência e a Cultura [Unesco], 1994).

More than 25 years after the Salamanca Statement, signatory countries are mobilizing to adjust educational policies and practices to promote inclusive schools. In the Portuguese educational context, there have been successive changes in legislation related to inclusive education, the most recent in 2018, with the publication of Decreto-Lei [Decree-Law] n. 54 (2018), which has created conditions in schools to ensure not only access for children and young people to school and classrooms regardless of their condition, but also participation and learning for all students. Currently, situations of students who do not attend regular school with their peers are very residual in Portugal (Alves et al., 2020). Nevertheless, it is recognized that inclusive education is not just about ensuring equality of access to school (Juvonen et al., 2019). The inclusion educational movement calls on teachers to create a positive climate within their classes, where all students play an active role, feel accepted and valued by their peers, and develop friendships (Yu et al., 2012).

Student social participation has been identified as a critical dimension for the success of inclusive education (Avramidis et al., 2018; European Agency for Special Needs and Inclusive Education [Easnie], 2014; Hassani et al., 2021; Organização das Nações Unidas [ONU], 2006), and can be seen as a generic term for the acceptance of students by their peers (e.g., social preference, rejection), the presence of positive contacts and interactions with peers, friendships with peers, and students' perception of how well they are accepted (e.g., social self-perception) (Koster et al., 2009). This definition points to the paramount role of peers as facilitators of social participation and, consequently, the inclusion of students with disabilities. However, although inclusion is now a reality in many countries and provides opportunities for contact with peers, the social participation of students with disabilities does not occur spontaneously (Alves, 2015; Rademaker et al., 2020).

The literature has shown that the social participation of students with disabilities in schools is reduced compared to that of their typically developing peers. Students tend to be less accepted and, therefore, have fewer opportunities to establish social interactions and friendships with their peers (Avramidis et al., 2018; Hassani et al., 2021).

The literature identified peers' attitudes towards students with disabilities as one of the core factors for effective inclusion and the starting point for promoting the social participation of students with disabilities (De Boer et al., 2012; Gore, 2015; Omote, 2016; Vignes et al., 2009).

Attitudes can be understood as a subjective judgment or evaluation directed towards an object or subject, being determinant in human behavior (Eagly & Chaiken, 1993). It is a multidimensional construct that involves what the subject thinks (cognitive dimension), feels (affective dimension), and how they behave (behavioral dimension) towards a particular person and/or social problem (Alves et al., 2021; Eagly & Chaiken, 1993; Triandis, 1971).

Attitudes support positive social interactions among peers, with benefits both academically (e.g., better performance in reading comprehension and academic performance) and socially (e.g., greater likelihood of belonging to a friendship group, greater autonomy, and competition in job-seeking) (Dias et al., 2016; Schifter, 2015; Wagner et al., 2005). In addition, benefits can be generalized to students without disabilities (e.g., greater acceptance of diversity; decrease of feelings

of prejudice, and ability to respond to others needs) (Grütter et al., 2017; Ruijs & Peetsma, 2009). In contrast, negative attitudes are identified as one of the main barriers to the inclusion of students with disabilities, leading to discriminatory behaviors that favor social exclusion and, in extreme cases, can lead to bullying, abuse, and/or aggression (De Boer et al., 2012; Hüg et al., 2019).

Recognizing the relevance of attitudes towards peers with disabilities for inclusion, research has sought to evaluate and identify related factors. Overall, studies conducted with different age groups, in different countries, including Portugal, point to a positive attitude towards the inclusion of peers with disabilities (Afonso, 2011; Alnahdi, 2019; Alnahdi et al., 2021; Alves, 2015; Amaral, 2009; Bossaert et al., 2011; Gore, 2015; Olaleye et al., 2012; Parada, 2014; Reis et al., 2020; Tirosh et al., 1997; Vignes et al., 2009). Even so, the results of a recent study (Cevallos et al., 2021) conducted with basic education students in Ecuador found a high percentage of students with negative attitudes towards peers with disabilities, with implications for their social isolation, as observed in recreational spaces and collaborative activities. This result is consistent with Schwab (2017) study, which has shown that students with disabilities are less frequently referred to joint activities, such as collaborative work on school projects.

The type of disability of students is identified as one of the factors that influence attitudes, due to attitudes tending to be more positive towards peers with visible physical or sensory disabilities compared to other disabilities, such as intellectual disability or autism spectrum disorder (De Laat et al., 2013; Petri, 2018).

Research has identified several contextual and individual factors that influence attitudes towards the inclusion of peers with disabilities (Alves, 2015; De Boer et al., 2012; Gonçalves & Lemos, 2014; Vignes et al., 2009). For the present study, we analyse individual variables, namely sex and age, experience of contact and proximity with people with disabilities, and psychological variables such as empathy, self-esteem, and overall life satisfaction.

Several studies point sex as determining factor of attitudes, with more positive attitudes in females (Alnahdi et al., 2021; Alves, 2015; Blackman, 2016; Bossaert et al., 2011; Dias et al., 2016; Gonçalves & Lemos, 2014; Gümüs & Öncel, 2021; Olaleye et al., 2012; Vignes et al., 2009). Despite this trend, there are some inconsistent results related to the analyses of the influence of gender on different dimensions of attitudes (affective, cognitive, and behavioral). Blackman (2016) did not find statistically significant differences between boys and girls in the affective and behavioral dimensions. In turn, the results of Alves (2015) showed that girls had more positive attitudes in all dimensions except the affective dimension, while Dias and colleagues (2016) found more positive attitudes among girls in all dimensions except the behavioral one. The results of Gonçalves and Lemos (2014) are also discordant, pointing to higher scores in girls in the affective and behavioral dimensions.

Regarding age, the research presents some inconsistencies, whose integration is hindered due to the variability of the age ranges of the study participants. Several studies have reported the absence of associations between age and peer attitudes towards students with disabilities (Blackman, 2016; Bossaert et al., 2011; Santos, 2014; Vignes et al., 2009). A significant body of research suggests that older students tend to have more positive attitudes towards peers with disabilities (Alnahdi, 2019; Alves, 2015; Gümüs & Öncel, 2021; Nabors & Larson, 2002; Nowicki, 2006). However, other studies have found that attitudes towards peers with disabilities are more negative as the age of participants increases (Afonso, 2011; Dias et al., 2016; Hughes, 2013; Ribeiro, 2015; Swaim & Morgan, 2001).

Concerning contact and proximity to people with disabilities, research has suggested that more positive attitudes are associated with greater contact and proximity to these people (Alves, 2015; Armstrong et al., 2016; Cevallos et al., 2021; Dias et al., 2016; Dias et al., 2020;

Gonçalves & Lemos, 2014; Gümüs & Öncel, 2021; Hughes, 2013; Keller & Siegrist, 2010; McGregor, 2003; Reis et al., 2020; Vignes et al., 2009). Several authors (Alves, 2015; Dias et al., 2016; Vignes et al., 2009) found that participants who had a direct family member with a disability had more positive attitudes than those who did not, and attitudes were more positive when the family member was someone close (e.g., father, mother, sibling). Alnahdi and colleagues (2021) found that having family members with disabilities did not influence children's attitudes, although a high frequency of contact with them was associated with more positive attitudes. In the same line, in a previous study, Schwab (2017) founds that students' attitudes did not differ based on whether or not they were integrated in the classroom with students with disabilities. Close contact with peers with disabilities, expressed through participation in joint activities, tends to be associated with more positive attitudes. Overall, the results of these studies demonstrate that more than just being in the same space (school and classroom), which is ensured by the accessibility of students with disabilities to the school context, it is close contact between peers that is critical for the development of positive attitudes towards peers with disabilities.

The analysis of the influence of contact and proximity to people with disabilities on the dimensions of attitudes towards inclusion showed that individuals with contact with people, family members, or friends with disabilities tend to have higher scores on the affective dimension (Dias et al., 2016; Dias et al., 2020; Gonçalves & Lemos, 2014). The results also showed a positive association with the cognitive dimension (Dias et al., 2016) and the behavioral dimension (Dias et al., 2020; Gonçalves & Lemos, 2014).

The study of the relationship between peer attitudes towards students with disabilities and psychological variables such as empathy, self-esteem, and overall life satisfaction is still scarce. The research results that analyzed the relationship between empathy and attitudes towards peers with disabilities seem to be consistent, indicating a positive association. Therefore, students with higher levels of empathy tend to have more positive attitudes (Hughes, 2013; Rathbone, 2013). This positive association is also evident between self-esteem and attitudes towards peers with disabilities (De Laat et al., 2013; Findler et al., 2007; Hughes, 2013). Although these studies (Findler et al., 2007; Hughes, 2013; Rathbone, 2013) did not focus on the adolescent age group, as they included older participants (high school and college), they show a trend of positive association between attitudes towards peers with disabilities and psychological variables, such as empathy and self-esteem. The same trend is observed in the relationship between overall life satisfaction and attitudes, with students who have higher levels of overall life satisfaction presenting more positive attitudes towards peers with disabilities (Vignes et al., 2009).

Given the relevance of attitudes towards peers with disabilities for effective inclusion, as well as the scarcity of research on this topic (Gümüs & Öncel, 2021), the present study aims to contribute to the understanding of adolescents' attitudes towards peers with disabilities. Specifically, we sought to describe the attitudes of adolescents towards peers with disabilities and to analyze the relationship between adolescents attitudes and sociodemographic variables (i.e., sex, age), psychological variables (such as, empathy, self-esteem, and overall life satisfaction), and experience with people with disabilities.

Method

Participants

The study included 190 participants, 43.7% were female, aged between 12 and 17 years old [mean (M) = 13.43, standard deviation (SD) = 1.26], attending two schools in the northern

region of Portugal, with 137 (72.1%) attending school A and the remaining 53 (27.9%) attending school B. This was a convenience sample, thus the results cannot be generalized and may reflect the idiosyncrasies of students attending the two schools. Regarding students' grades, 45.8% of participants were in the 7th grade, 25.8% in the 8th grade, and 26.8% in the 9th grade, 1.6% of the participants did not identify their grade.

Measures

- *Sociodemographic questionnaire* – was developed for the present study to collect sociodemographic information from participants (sex, age, grade) and their respective families (age, occupation, and educational level of parents). Questions related to contact with individuals with disabilities within and outside of school were also included.
- *Chedoke-McMaster Attitudes Towards Children with Handicaps Scale (CATCH)* – assesses attitudes towards peers with disabilities. The original version of the scale consisted of 36 items (Rosenbaum et al., 1986). In this study, the Portuguese adaptation by Gonçalves and Lemos (2014) was used, consisting of 19 items organized in three dimensions: affective (6 items), behavioral (7 items), and cognitive (6 items). Responses were scored on a Likert-type scale ranging from 0 (completely disagree) to 4 (completely agree). The total score is calculated through the average of the items multiplied by 10, after inverting items 5, 8, 9, 12, 15, and 18, and can range from 0 to 40. Higher scores are associated with more positive attitudes towards inclusion (Alves, 2015; Dias et al., 2016). Although the factorial solution published by Gonçalves and Lemos (2014) consists of two factors (cognitive and behavioral/affective) with adequate internal consistency values (Cronbach's alpha) of .66 for the cognitive subscale (6 items) and .88 for the behavioral/affective (13 items), it was decided, at the recommendation of the authors, to analyze the total score and three theoretical factors in this study: global scale ($\alpha = .89$); cognitive ($\alpha = 0.65$); affective ($\alpha = .80$); behavioral ($\alpha = .80$). Other studies with Portuguese populations also recommend the three-dimensional analysis of attitudes (Alves et al., 2021; Dias et al., 2016).
- *Basic Empathy Scale (BES)* – assesses empathy in adolescents aged 12 to 18 years. It encompasses 16 items organized in two dimensions – affective and cognitive –, with 5 response options, scored from “completely disagree” to “completely agree” on a 5-point Likert-type scale (Anastácio et al., 2016). This instrument has good psychometric qualities, with Cronbach's alpha values of .80 for the total scale, .70 for the affective dimension, and .80 for the cognitive dimension (Anastácio et al., 2016). In the present study, the internal consistency values were adequate, specifically .76 for the total scale, .73 for the affective dimension, and .70 for the cognitive dimension.
- *Rosenberg Self-Esteem Scale (RSES)* – assesses self-esteem in adolescents and adults, comprising 10 items, responding on a 4-point Likert-type scale (Pechorro et al., 2011). The internal consistency of the data obtained through this instrument in the school sample of the study by Pechorro and colleagues (2011) was quite satisfactory ($\alpha = .81$), being very similar to the reliability index obtained in the present study ($\alpha = .85$).
- *Students' Life Satisfaction Scale (SLSS)* – is a self-report scale designed to assess the overall life satisfaction of individuals aged between 8 and 18 years old. It consists of seven items. Responses are scored on a 6-point Likert-type scale (Marques et al., 2007). This instrument had good psychometric properties in the study by Marques and colleagues (2007) ($\alpha = .86$). In the present study, a similarly adequate value of internal consistency was obtained ($\alpha = .82$).

Procedures

Data collection took place between March and June 2018. After obtaining authorization from the school director, informed consent was obtained from parents and students. The consent form explained the study objectives, the principles of anonymity and confidentiality of data, ensured voluntary participation, and the possibility of dropping out of the study at any time. Students had the opportunity to ask questions before completing the questionnaires. The questionnaires were administered in the classroom to the consenting students.

IBM SPSS Statistics 20 software was used to analyze data. Descriptive statistics were performed to describe adolescents' attitudes in different dimensions. Independent samples t-test and Pearson correlation were used to analyze the relationship between attitudes towards peers with disabilities and sociodemographic and psychological variables. Cohen's *d* effect size was also calculated, with reference to Cohen's (1992) recommendations for interpretation: small (< 0.50), moderate (between 0.50 and 0.79), and large ($\geq .80$). For interpreting correlation values, Cohen's (1992) recommendations were considered: small (< 0.30), moderate (between 0.30 and 0.49), and large ($\geq .50$).

Results

Based on the mean values (see Table 1), adolescents' attitudes towards peers with disabilities are generally positive ($M = 29.00$; $SD = 5.17$). The coefficient of variation (CV) was calculated for each dimension in order to compare the variability of the data in relation to the means. The values found indicate a moderate relative dispersion in the affective and behavioral dimensions of attitudes and a low relative dispersion ($< 15\%$) in the cognitive dimension and in the total scale of attitudes, which means that the cognitive dimension has more homogeneous data compared to the other two dimensions.

Table 1

Descriptive statistics of attitudes of adolescents towards peers with disabilities (CATCH)

Dimensions	α	<i>M</i>	<i>SD</i>	Minimum	Maximum	CV
Affective	.80	26.13	6.56	0.00	40.00	25.1
Cognitive	.65	31.99	4.96	16.67	40.00	15.5
Behavioral	.80	28.87	6.64	0.00	40.00	23.0
Total scale	.89	29.00	5.17	5.26	40.00	17.8

Source: Prepared by the authors.

CATCH = Chedoke-McMaster Attitudes Towards Children with Handicaps Scale; α = Cronbach's alpha: internal consistency index; *M* = mean; *SD* = standard deviation; CV = coefficient of variation (%).

Statistically significant differences were found between boys and girls in all dimensions and in the total score obtained in attitudes towards peers with disabilities. Effect sizes range from small to moderate. Based on the mean values obtained for each group, girls reported significantly more positive attitudes towards the inclusion of peers with disabilities compared to boys, in all attitude dimensions and in the total scale (see Table 2).

Table 2
Attitudes of adolescents towards peers with disabilities (CATCH) based on sex

Dimensions	Male (n = 105)		Female (n = 83)		t(df=186)	p	d
	M	SD	M	SD			
Affective	24.90	7.23	27.49	5.21	2.75	.007	0.41
Cognitive	31.15	5.35	33.06	4.20	2.66	.009	0.40
Behavioral	27.11	7.21	31.05	5.08	4.22	< .001	0.63
Total scale	27.69	5.78	30.57	3.76	3.93	< .001	0.59

Source: Prepared by the authors.

CATCH = Chedoke-McMaster Attitudes Towards Children with Handicaps Scale; M = mean; SD = standard deviation; t(df=186) = t-Student test statistic (degrees of freedom); p = p-value; d = magnitude effect (Cohen's d).

According to the results presented in Table 3, there is a small negative correlation ($r = -.153$, $p < .05$) between age and the affective dimension, indicating that older students tend to report more negative attitudes towards peers with disabilities.

Table 3 also shows a moderate positive correlation between the total empathy measure and the affective dimension ($r = .315$, $p < .01$) and low-moderate positive correlations between total empathy and the behavioral dimension ($r = .285$, $p < .01$), between cognitive empathy and the affective dimension ($r = .292$, $p < .01$) and between cognitive empathy and the behavioral dimension ($r = .255$, $p < .01$). These results suggest that students with more empathy tend to have more positive attitudes. In the other measures of empathy and dimensions of attitudes, the correlation is low, except between the cognitive dimension of attitudes and affective empathy, where there is no statistically significant association ($r = .087$, $p > .05$). In turn, there were no statistically significant associations between attitudes towards peers with disabilities and self-esteem and overall satisfaction with life (Table 3).

Table 3
Pearson correlations between attitudes of adolescents towards peers with disabilities and age, empathy, self-esteem, and overall life satisfaction

Dimensions	Age	Affective empathy	Cognitive empathy	Total empathy	Self-esteem	Overall life satisfaction
Affective	-.153*	.234**	.292**	.315**	.026	.080
Cognitive	.045	.087	.202**	.166*	-.062	-.064
Behavioral	-.119	.217**	.255**	.285**	-.042	.007
Total scale	-.101	.223**	.301**	.313**	-.029	.015

Source: Prepared by the authors.

Note: Non-null correlation at descriptive levels * $p < .05$ or ** $p < .01$.

Regarding to the experience of contact with people with disabilities at school, results show that the majority ($n = 158$, 83.2%) had at least one colleague at school with a disability, and only 40.1% ($n = 63$) of these usually socialised with this colleague (note that one participant did not answer this question). Around 46.8% ($n = 87$) of the adolescents also reported having a classmate with a disability (four participants did not answer the question). There were no statistically significant differences in attitudes towards peers with disabilities depending on whether or not they had contact with a classmate with a disability (Table 4).

Table 4

Attitudes of adolescents towards peers with disabilities (CATCH) based on contact with classmates with disabilities

Dimensions	Contact with classmates with disabilities				t(df=184)	p
	Yes (n = 87)		No (n = 99)			
	M	SD	M	SD		
Affective	25.80	6.77	26.20	6.36	-0.41	.680
Cognitive	32.36	5.25	31.67	4.64	0.94	.348
Behavioral	28.58	7.18	28.97	6.14	-0.39	.695
Total scale	28.90	5.66	28.95	4.71	-0.06	.951

Source: Prepared by the authors.

CATCH = Chedoke-McMaster Attitudes Towards Children with Handicaps Scale; M = mean; SD = standard deviation; t(df=184) = t-Student test statistic (degrees of freedom); p = p-value.

Regarding contact with people with disabilities outside of school, only 28.9% (n = 55) of the adolescents had contact, and 40% were friends (n = 22). Most of these adolescents usually socialized with these people at least once a week (n = 21, 38.2%) or less than once a month (n = 20, 36.4%). Statistically significant differences were only found when contact was established with people outside of school, in the behavioral dimension and in the total scale, albeit with low effect magnitude values. The results indicate that students with experience of contact with people with disabilities outside of school reported more positive attitudes towards peers with disabilities, compared to students without this type of experience (Table 5), although the magnitude of effect values were low, according to the criteria recommended by Cohen (1992).

Table 5

Attitudes of adolescents towards peers with disabilities (CATCH) based on contact with people with disabilities outside of school

Dimensions	Contact with people with disabilities outside of school				t(df=188)	p	d
	Yes (n = 55)		No (n = 135)				
	M	SD	M	SD			
Affective	27,53	6.12	25.56	6.67	1.89	.060	0.30
Cognitive	32,45	4,87	31.80	5.00	0.83	.407	0.12
Behavioral	30,54	6,23	28.19	6.70	2.23	.027	0.37
Total scale	30,22	4,70	28.50	5.29	2.09	.038	0.34

Source: Prepared by authors.

CATCH = Chedoke-McMaster Attitudes Towards Children with Handicaps Scale; M = mean; SD = standard deviation; t(df=188) = t-Student test statistic (degrees of freedom); p = p-value; d = magnitude effect (Cohen's d).

Discussion

The present study aimed to explore adolescents' attitudes towards peers with disabilities and to analyze the relationship between attitudes and sociodemographic, psychological, and contact experience variables.

The results of this study showed that adolescents' attitudes towards peers with disabilities are, on average, positive, which is consistent with previous studies (Afonso, 2011; Alnahdi, 2019; Alnahdi et al., 2021; Alves, 2015; Amaral, 2009; De Laat et al., 2013; Gore, 2015; Parada, 2014;

Reis et al., 2020; Vignes et al., 2009). These results raise new research questions to understand whether positive attitudes lead not only to a behavioral intention to contact peers with disabilities but also to effective contact and interaction. This question is frequent in the literature, with several authors arguing that their research results could be reinforced and complemented by an assessment of students' attitudes through the observation of their behaviors (Adibsereshki et al., 2010; Holtz & Tessman, 2007; Martinez & Carspecken, 2007).

Regarding the influence of sociodemographic variables on attitudes, the findings indicated that girls have more positive attitudes towards peers with disabilities compared to boys, as expected according to several previous studies (Alves, 2015; Alnahdi et al., 2021; Blackman, 2016; Bossaert et al., 2011; Dias et al., 2016; Gonçalves & Lemos, 2014; Gümüs & Öncel, 2021; Olaleye et al., 2012; Vignes et al., 2009). These results may be related to gender-associated characteristics, as boys tend to be more competitive, and girls are more predisposed to help, leading them to exhibit more cooperative behaviors towards people with disabilities (Alves, 2015; Pratas, 2014; Silva, 2014).

The present study found a statistically significant correlation between age and the affective dimension of attitudes, indicating more positive attitudes among younger students, in the same line with previous studies (Afonso, 2011; Dias et al., 2016; Hughes, 2013; Ribeiro, 2015; Swaim & Morgan, 2001). The intensity and complexity of interactions with peers in adolescence may contribute to explaining this result (Alves, 2015; Carter & Hughes, 2005). As highlighted by Dias et al. (2020), this developmental stage is characterized by greater selectivity in interactions, which may lead to greater social contact restriction and exclusion of peers, including those with disabilities. As such, reduced contact with these peers may explain less positive attitudes.

Findings related to psychological variables, such as empathy, self-esteem, and overall life satisfaction, indicated a positive association between empathy and attitudes towards peers with disabilities. This association was not found in the other psychological variables. These results are in line with previous studies (Hughes, 2013; Rathbone, 2013) suggesting that adolescents with higher levels of empathy tend to have more positive attitudes towards the inclusion of peers with disabilities. Therefore, promoting educational environments that support the development of this competence is important to highlight.

Regarding the results on self-esteem, the results reinforce the findings of Keller and Siegrist (2010), indicating that higher levels of self-esteem were not associated with more positive attitudes towards peers with disabilities. However, these results are not in line with other previous studies (De Laat et al., 2013; Findler et al., 2007; Hughes, 2013). Self-esteem is a variable pointed out in the literature as essential for the development of quality interpersonal relationships (Duclos, 2006; Pratas, 2014), so it was expected to be associated with attitudes.

The results obtained regarding satisfaction with life reinforce the findings from Keller and Siegrist's study (2010), suggesting that higher levels of overall life satisfaction are not associated with more positive attitudes towards peers with disabilities. However, Vignes and colleagues (2009) found a positive relationship between the two variables, indicating that higher levels of life satisfaction would tend to lead to positive attitudes. Given these results, additional studies could clarify these associations and explore personal and contextual variables that moderate these relationships.

The proximity to people with disabilities outside of school was associated with more positive attitudes, corroborating findings from previous studies (Alves, 2015; Armstrong et al., 2016; Cevallos et al., 2021; Dias et al., 2016; Gonçalves & Lemos, 2014; Gümüs & Öncel, 2021; Reis et al., 2020; Vignes et al., 2009), which have emphasized the importance of contact and proximity in promoting positive attitudes, as direct contact can contribute to a greater understanding and sensitivity towards people with disabilities (McDougall et al., 2004; Vignes et al., 2009). However, no differences were observed in attitudes between adolescents with or without contact with peers

with disabilities in school, which seems to indicate that contact with peers with disabilities is not sufficient to promote positive attitudes. In this sense, the access of students with disabilities to school and to the classroom is an essential factor in stimulating contact between students, but it does not in itself guarantee that it will occur (Alves, 2015; Dias et al., 2022; Petri, 2018; Rademaker et al., 2020; Schwab, 2017). The intentionality, quantity, and quality of the activities promoted in school and in the classroom, with a focus on interaction and cooperation between students, are crucial to enhancing close contact and an empathetic attitude. In this line, Dias and colleagues (2020) found more positive attitudes in students who played and talked with students with disabilities, which reinforces the role of proximity and positive interactions in attitudes towards these students.

Other research questions emerge from these findings. In particular, understanding the role of educational agents in promoting close contact and positive interaction between students with and without disabilities. Developing a culture of inclusive school and a positive classroom climate is essential to make the educational context favorable to the development of positive attitudes towards diversity and students with disabilities in particular. This condition is essential to maximize social participation and, consequently, the social and academic development of these students (Sette et al., 2020; Wentzel, 2017).

Conclusions

The present study aimed to contribute to the understanding of the adolescents' attitudes towards peers with disabilities, specifically analyzing their relationship with individual variables, such as age, sex, psychological variables such as empathy, self-esteem, and overall life satisfaction, and variables related to contact experiences with people with disabilities. Studies focused on this topic are scarce, especially with the Portuguese population and in this particular age group. The results showed that the attitudes of adolescents towards peers with disabilities are generally positive, which could be an indicator of more accepting behaviours towards diversity, a fundamental factor for the interaction and social inclusion of these students. Additionally, the results suggested that sex, age, experience of contact with people with disabilities outside of school, and empathy are individual influential factors in adolescents' attitudes.

From the results of this study, it is possible to point out some implications for practice and future research. The importance of educational interventions, with a focus on school and classroom, to intentionalize pedagogical practices that promote contact, proximity, and effective positive interaction between students is highlighted. The access of students with disabilities to school and classrooms is a reality in Portuguese schools; however, the data reinforces the need for intentional action in an early stage of development to stimulate and sustain close contact and involvement among peers. The participation of students with disabilities and the implementation of cooperation dynamics between peers can enhance empathy and the development of inclusive attitudes, essential for combating discrimination.

Some limitations of this study are highlighted, with implications for future studies. In this study, a convenience sample was used, which limits the generalization of the results. Thus, the data may reflect the idiosyncrasy of schools, in terms of their organizational options, culture, and pedagogical practices. In this regard, it is suggested, in future studies, to analyze environmental factors such as school culture, pedagogical practices in the classroom, the attitudes of families and education professionals (e.g., teaching and non-teaching staff), and their impact on attitudes towards diversity. In this study, the focus was limited to individual factors.

The use of self-report measures, although facilitating the data collection process due to their quick application, has some limitations, namely, random responses, ignored questions, difficulty

in interpreting some of the items, and social desirability, which may have influenced the results. Therefore, it may be relevant, in future studies, to complement with other data collection measures, particularly with measures of observation of interactions between students with and without disabilities, in order to analyze to what extent the behavioral intention translates into effective positive behaviors.

In the present study, the collected data focused on the perception of students without disabilities. However, comparing these perceptions with those of students with disabilities could be relevant.

Acknowledgments

This paper was funded by National Funds through the Fundação para a Ciência e a Tecnologia (FCT), I.P., under the project UIDB/05198/2020 (Centre for Research and Innovation in Education, inED) and under the project UIDB/00050/2020 (Center for Psychology at Porto University).

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Note on authorship

Each author participated in the preparation of the article: research design – Alda Ribeiro, Carla Peixoto, and Francisco Machado; literature review – Alda Ribeiro, Carla Peixoto, Francisco Machado, Sílvia Alves, and Helena Azevedo; data collection – Alda Ribeiro; data analysis – Alda Ribeiro, Carla Peixoto, Vera Coelho, and Helena Azevedo; discussion of the results – Alda Ribeiro, Carla Peixoto, Sílvia Alves, and Helena Azevedo; final revision of the text – Francisco Machado, Mónica Soares, Vera Coelho, Sílvia Alves, and Helena Azevedo.

Data availability statement

The research data cannot be publicly available by the authors for ethical reasons, since the participants were not asked for their informed consent to make it available.

How to cite this article

Ribeiro, A., Peixoto, C., Machado, F., Soares, M., Coelho, V., Alves, S., & Azevedo, H. (2023). Portuguese adolescents' attitudes towards peers with disabilities. *Cadernos de Pesquisa*, 53, Article e09672. https://doi.org/10.1590/198053149672_en