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Personal And Social Factors Influencing Students' Attitudes Towards Peers With Special Needs

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Abstract

Within inclusive education, it is crucial to consider how students with special needs are valued as members of school community and may fully and actively take part in school-life. The present study aims: 1) to assess students' attitudes towards peers with special needs; 2) to understand how personal factors (age, gender, school achievement and social competence) and social factors (contacting with persons or family member with SN) predict students' attitudes variation.

Participants were 200 Portuguese students from 6th to 12th grade. Instruments were administered during class: (i) CATCH (Rosenbaum, Armstrong & King, 1986), comprising a cognitive and an affective-behavior subscale (ii) Social goals Scale (Wentzel, 1993), comprising a social responsibility and a prosocial subscale.

We conducted exploratory factor analysis on CATCH and stepwise regression analysis using attitudes as dependent variable. Affective-behavior attitudes were higher in girls and in students with contact with special needs peers and showed moderate correlations with social competence; Cognitive attitudes were higher in older students and were not related with social competence. Prosocial goals were the best predictor of attitudes towards peers with special needs.

Results showed that attitudes towards peers with special needs may be influenced by personal and contextual factors. Confirming other findings girls showed more positive attitudes. Also students who have contact with peers with special needs have more positive attitudes, evidencing the potential impact of inclusive settings. The relation found between attitudes and social motivation (mainly prosocial goals) has implications for educational intervention.

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1. Introduction

In recent years there is an increasing movement towards the inclusion of all children in school contexts. International organisms like UNESCO have been playing an important role influencing inclusive educational policies within Education For All agenda.

Inclusion in education is valued as a goal in itself, as it reflects the essence of inclusive societies. Inclusion is also valued for its role in promoting educational contexts adequate for learning for all pupils and in building non-discriminatory, open, collaborative and inclusive communities.

In education, the movement towards inclusion aims at increasing the opportunities to learn through interaction with others and to promote the participation in the life of the community (UNESCO, 1994). Thus it is required that all students may take a full and active part in school-life, be valued members of the school community and considered as integral members of the community (Farrell, 2000).

However inclusive orientations don't promote automatically positive interactions among school community members. It has been evidenced that negative attitudes from peers and from other school members may represent barriers to full social inclusion of students with special needs in schools.

Most of the research on social acceptance has shown that students with special needs are often not accepted by their peers (e. g., Bryan, 1997; Freeman, 2000; Stone & LaGreca, 1990). It was also evidenced that students with special needs frequently have lower sociometric status relative to their typically developing peers, and are overrepresented in the rejected and neglected sociometric groups (Kuhne & Wiener, 2000; Stone & LaGreca, 1990).

Based on a meta-analysis of research published from 1990 to 2000 examining attitudes toward children with disabilities, Nowicki and Sandieson (2002) concluded that children without disabilities generally preferred to interact with children without disabilities. However, the authors conclude that the difficulties found in assessing students' attitudes don't allow extracting definitive conclusions.

1.1. Factors influencing attitudes towards peers with special needs

In the inclusion debate, social contact and interactions with typical peers have been identified as central issues.

Research has explored attitudes towards peers with special needs trying to identify factors that might affect them. The identification of those factors is crucial for implementing intervention programs to promote more positive social interactions between students with special needs and their peers.

Gender has been identified as the most common determinant of students' attitudes, girls generally showing more positive attitudes than boys (McDougall, DeWit, King, Miller & Killip, 2004; Rosenbaum, Armstrong & King, 1986). Vignes, Godeau, Sentenac, Coley, Navarro, Grandjean et al. (2009) confirmed that girls evidenced more positive attitudes than boys, but the effect of gender was not present in cognitive and emotional attitudes' dimensions. By contrary, Laws and Kelly (2005) found no differences between girls and boys, but girls' attitudes appeared to be more sensitive to the provision of information. Other determinants of positive attitudes identified were being friend with a child with disabilities, well-being indicators and information received about disabilities from media and families (McDougall et al., 2004; Vignes et al., 2009).

Research on the personal and social determinants of attitudes towards peers with special needs has predominantly focused on the effects of gender, age, contacting with peers with special needs and information received about disabilities. However students' goals may also affect attitudes towards accepting and cooperating with peers in educational contexts (Levy, Kaplan & Patrick, 2004).

In motivational research it is argued that all actions are given meaning, direction, and purpose by the goals that individuals pursue, and that goals affect the quality and intensity of behavior (Covington, 2000). The effects of students' goals (both achievement goals and social goals) on academic behavior, engagement and achievement have been intensively evidenced. Also the importance of social goals for students' motivation and behavior was emphasized in the early formulations of goals' research (e. g., Blumenfeld, 1992; Covington, 2000). Social motivation is thought to strongly influence social behavior, social adjustment and socialization experiences that

motivate not only social behavior but also academic behavior (Juvonen & Wentzel, 1996; Wentzel & Wigfield, 1998).

However there is a lack of research concerning the effects of students' goals in the social domain and more specifically in attitudes towards peers. Only recently research in the field has renewed the interest for the role of goals in students' social cognitions and relationships (Levy et al., 2004). Students' pursuit of goals to help, cooperate and making friends (prosocial goals) and to follow classroom rules and norms and being responsible to others (responsibility goals) as defined by Wentzel (1993) may also influence students' attitudes as well as students' behavior towards their peers, including those with special needs.

1.2. Dimensions of attitudes towards peers with special needs

Attitudes towards peers with special needs have been conceptualized as a multidimensional construct, composed of affective, behavioral, and cognitive components (Antonak & Livneh, 2000; Rosenbaum et al., 1986; Vignes et al., 2008). The affective component addresses feelings and emotional reactions, involving statements of feeling toward disabled children. The behavioral component relates to actual or intended behavior, involving statements of what a child would do with a disabled peer. The cognitive component reflects beliefs and knowledge, involving verbal statements of belief about disabled children. Rosenbaum and collaborators (1986) proposed a multidimensional conceptualization of attitudes towards peers with disabilities and constructed CATCH, a scale to assess this multidimensional construct.

This multidimensional model has been adopted in other researches and the advantage of assessing a broader range of attitudes' components has been revealed (see Vignes and collaborators (2008) for a review).

2. Method

2.1. Aims

The present study aims at to characterize the attitudes of students towards their peers with special needs and to identify factors associated with these attitudes. More specifically, we want to analyze if students' attitudes towards peers with special needs vary according to gender, school grade-level, academic achievement, previous school failure, contact with people with special needs, having a family member with special needs, and students' social motivation (social goals adopted by students).

2.2. Sample

Participants were 200 Portuguese students from a public school in the north of Portugal, from 6th to 12th grade (14 from 6th grade; 35 from 7th grade; 45 from 8th grade; 34 from 9th grade; 30 from 10th grade; 29 from 11th grade; 13 from 12th grade); Ages ranged from 11 to 19 years ($M = 14.7$); Gender distribution: 48% girls and 52% boys.

2.3. Procedures

Students answered to the questionnaires in their classrooms, during class time, in the presence of the teacher. Confidentiality was guaranteed. Informed consent and the authorization of the school administration were previously obtained.

Students self-reported if they had contact with peers with special needs or if they had a family member with special needs. Information about students’ academic achievement and previous school failure was collected from school records.

2.4. Instruments

Attitudes towards peers with special needs were assessed using CATCH scale - Chedoke-McMaster Attitudes Towards Children with Handicaps (Rosenbaum, Armstrong and King, 1984) which includes three subscales (cognitive, affective and behavioral). The term *disabled* was used in all statements to refer to children with special needs. The word *disabled* is more familiar to students from this age range than the term *special needs*. Examples of items:

- Disabled children are often sad (cognitive item)
- I would invite a disabled child to sleep over at my house (behavioral item)
- I would be happy to have a disabled child for a special friend (affective item)

In a comprehensive review of the literature in this area Vignes et al. (2008) range CATCH as a suitable instrument for assessing attitudes.

In the present study an exploratory factor analysis of CATCH scale using principal component analysis indicated two dimensions: a behavior-affective component (explaining 25% of the variance) and a cognitive component (explaining 11% of the variance). This solution is consistent with findings from previous studies (e.g., Rosenbaum et al., 1986; Tirosh, Schanin & Reiter, 1997; Vignes et al., 2009). Reliability analysis (Cronbach’s alpha) for the behavioral/affective subscale was .875 and for the cognitive subscale was .607. In the present study we use both the subscales scores and the total scale score, following the suggestions of Rosenbaum and collaborators (1986). Considering the lower internal consistency, we look at the results of cognitive subscale cautiously.

Students’ social goals were assessed using the Wentzel’s Scale of Social Goals (1993), adapted to the Portuguese population by Lemos and Meneses (2006), consisting of a subscale of social responsibility (alpha=.722) and a subscale of prosocial goals (alpha=.822). Example of items:

- How often do you try to help your classmates learn new things? (Prosocial item)
- How often do you try to be quiet when others are trying to study? (Social Responsibility item)

3. Results

Descriptive data obtained concerning CATCH’s global scale and the two subscales are presented below.

Table 1. Descriptive results from CATCH (cognitive, behavioral/affective and global scores)

	Mín	Max	M	SD	skewness	kurtosis
Cognitive subscale	1.29	4.43	2.79	0.62	0.08	-0.03
Behavior/affect subscale	2.19	5	3.70	0.59	0.00	-0.83
Global score	2	4.61	3.47	0.50	-0.14	-0.46

Significant differences in attitudes between groups were found for gender, for contact with a peer with special needs, and for student's grade-level. On average, girls showed more positive global attitudes ($M=2.86$, $SE=.05$) and behavioral/affective attitudes ($M= 2.86$, $SE=.06$) than boys ($M=2.73$, $SE=.05$, and $M=2.73$, $SE=.06$, respectively). These differences were significant ($t(198)=3.31$; $p<.001$, and $t(198)=3.40$; $p<.001$, respectively), and they represented effect sizes of $r=.22$, and $r=.23$, respectively.

Students who have contact with peers with special needs showed more positive global attitudes ($M=3.65$, $SE=.07$) and behavioral/affective attitudes ($M= 3.92$, $SE=.07$) than those who have no contact ($M=3.39$, $SE=.04$, and $M=3.59$, $SE=.05$, respectively). These differences were significant ($t(198)=-3.79$; $p<.000$, and $t(198)=-3.55$; $p<.000$, respectively), and they represented effect sizes of $r=.26$, and $r=.24$, respectively.

For the purpose of the analysis of differences according to students' grade-level we formed 3 groups (G1: 6th and 7th graders; G2: 8th and 9th graders; and G3: 10th, 11th and 12th graders). Univariate analysis of variance showed significant differences according to grade level in the cognitive subscale [$F(2,198) =6,528$, $p=.002$]. Multiple comparisons using Scheffe test evidenced that the older students (G3) showed significantly more positive cognitive attitudes ($M=2.98$, $SE=.06$) than younger students (G1; $M=2.59$, $SE=.09$). This difference represented an effect size of $\eta^2=.06$.

There were no differences according to having experienced a previous school failure or having a family member with special needs.

Correlational analysis showed moderate correlations between student's social goals and both the behavior-affective subscale and the global scale. The cognitive subscale was not related either with prosocial or with social responsibility goals (Table 3).

Table 3. Correlations between attitudes towards peers with special needs and social goals

	Cognitive subscale	Behavior-affective subscale	Global scale
Prosocial goals	.05	.41***	.38***
Social responsibility goals	.07	.35***	.34***

***= $p<.001$

We conducted *stepwise* multiple regression analysis, with the students attitudes towards peers with special needs (global score) as the dependent variable and using social goals as predictors.

Results showed that prosocial goals significantly predicted attitudes' scores. Model 1, with prosocial goals as the unique predictor is the best model to explain attitudes variance (14% of explained variance).

Table 4. Summary of multiple regression analysis for social goals as predictors of attitudes towards peers

Model	Predictor	$F(gl)$	R^2_{adjust}	Beta	T	Sig
1	Prosocial Goals	417.654(1)	.14	.384	4.202	$p<.000$

However when those effects were controlled for gender, prosocial goals predict attitudes' variance in girls (adjusted $R^2 = .283$), but not in boys (adjusted $R^2 = .031$).

4. Conclusions

In recent years the movement towards inclusive education has underline the need for eliminating exclusion in educational settings and in society at general. Inclusion is about learning through interaction with others, taking full and active part in school-life and being valued members of the community. It has been widely recognized that exclusion is a consequence of negative attitudes and a lack of response to diversity in educational policies.

Despite substantial progress made in many countries, an attention is still needed to 75 million children who are out of school or are hard to reach and also to the many children who attend school but who are excluded from learning or who do not receive an education of good quality (UNESCO, 2009). Even in countries adopting inclusive education policies, attitudes of peers and other members of the school community are identified as barriers to the access to positive interactions with others.

Findings of the present study showed that student's attitudes towards their peers with special needs are influenced both by personal and social factors.

Generally, girls seemed to adopt more positive attitudes than boys, confirming findings from other researchers (Rosenbaum et al., 1986; Vignes et al., 2009). The gender differences identified concern the behavior-affective dimension of students' attitudes, but not the cognitive dimension.

Some age effects were found concerning the cognitive dimension, evidencing higher scores in older students. These findings indicate that older students may possess more knowledge about disability than younger students. This knowledge may have been acquired through formal education (information provided) or through informal education (experiences in different contexts and modeling). Interestingly age differences in attitudes' behavior-affective component were not found. Although the present study adopted a cross-sectional design, these findings may indicate a possible stability in the behavior-affective dimension over the years.

Findings also showed that social motivation was related to attitudes towards peers with special needs, showing that students that were more oriented towards social goals also displayed the more positive attitudes. However this relation is evidenced mainly in girls. Prosocial goals and social responsibility goals are both related to attitudes' behavior-affective dimension and non-related to the cognitive dimension. As expected students more oriented towards making friends (prosocial goals) and to compliance and helping others (social responsibility goals) are more likely to have positive behavioral and affective attitudes towards peers with special needs. As multiple regression analysis evidenced, prosocial goals had the more powerful influence on attitudes. This finding may indicate that attitudes towards peers with special needs may be more close to friendship building than to compliance to school demands or rules.

Finally, a contextual factor influencing students' attitudes was also found. Students who reported having regular contact with peers with special needs evidenced more positive behavior-affective attitudes. Contacting with peers with special needs was not related with attitudes' cognitive dimension. These findings support the benefits of inclusive settings in promoting tolerance to diversity, social acceptance and positive social interactions.

In conclusion, the results of the present study identified personal and contextual factors influencing students' attitudes towards their peers with special needs. The results point to the relevance of assessing attitudes as a multidimensional construct, as those factors differentially affect the cognitive and behavior-affective dimensions. Findings also suggest that interventions to promote positive attitudes and positive interactions among students

with and without special needs should incorporate inclusive experiences, information provision and support to friendship building.

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