



Article

'I Feel Well, Accepted and Competent in School'—Determinants of Self-Perceived Inclusion and Academic Self-Concept in Students with Diagnosed Behavioral, Emotional and Social Difficulties (BESD)

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Abstract: The present paper reports on the perceptions of inclusion in students with formally diagnosed behavioral, emotional and social difficulties (BESD) by taking into account social and didactic characteristics of the class teachers' behavior as possible predicting variables. $N = 119$ students with BESD attending either special or inclusive secondary schools in North-Rhine Westphalia, Germany were questioned about their self-perceived emotional inclusion, social inclusion and academic self-concept, as well as about their perception of the class teacher's behavior in the dimensions 'care' and 'pressure for achievement'. In this context, the present study pursued two key objectives: Firstly, to identify possible differences in perceptions of inclusion and perceived class teacher behavior between students with BESD in inclusive and special schools. Secondly, to examine whether perceived aspects of the class teacher behavior function as significant predictors for perceptions of inclusion. To examine these research issues, one-way analyses of variance (ANOVA) and structural equation modelling (SEM) were applied. The findings suggest that academic self-concept and perception of class teacher behavior are significantly more positive in special schools than in inclusive schools. Furthermore, a substantial link between perceived class teacher behavior and self-perceived inclusion was identified with 'care' predicting emotional and social inclusion as well as 'pressure for achievement' predicting academic self-concept. Concerning this structural pattern, a significant moderating effect through 'school setting' was detected. Further comparative and longitudinal studies should evaluate the subjective perceptions of students with diagnosed BESD in school with special regard to a broader range of potentially influencing (subjective and objective) class teacher variables.

Keywords: perceptions of inclusion; inclusive education; self-concept; special educational needs; behavioral; emotional and social difficulties; class teacher



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1. Introduction

With the ratification of the UN Convention on the Rights of Persons with Disabilities (United Nations 2006), the systemic implementation of inclusive education has emerged to an international consensus. Since Germany's ratification of the UN Convention in 2009, the development towards inclusive education can be characterized as rather decelerated. Despite a steady and statistically significant increase in students with special educational needs (SEN) being educated in inclusive schools (Scheer and Melzer 2020), the total ratio of students with SEN in inclusive schools (44%) and special schools (56%) in Germany has appeared to stagnate since 2015 (KMK 2022). However, statistical ratios only provide a partial view, since placing students with different needs and abilities in the same classroom cannot be regarded as a sufficient condition for inclusive education. More importantly, it is essential to provide perpetual and comprehensive support for the students' overall development in school regarding social, emotional as well as academic aspects (Alnahdi and Schwab 2020). The students' self-perception of these developmental aspects can be

regarded as important indicators for successful education (DeVries et al. 2018). Taking into consideration the existing institutional duality in Germany, this overarching target has to apply both for inclusive and special schools (Zdoupas 2022). In the past, numerous comparative studies have addressed emotional, social and academic self-perceptions in students with SEN in inclusive and special schools (e.g., Gorges et al. 2018; Kocaj et al. 2018; Stelling 2018). However, the vast majority of the currently available studies lack a clear differentiation between different forms of SEN. In this context, the three most common SEN (including learning difficulties, and speech and language difficulties as well as behavioral, emotional and social difficulties) are frequently summarized into a broader common category. Since these forms of SEN are each associated with their own and distinctive problems of potential in school (Laubenstein 2016), a summarizing view appears questionable both from a theoretical and a methodical perspective.

Against this background, the present study contributes to the emerging research activity on self-perceptions of students with SEN in school by focusing on three aspects: (1) students with formally diagnosed behavioral, emotional and social difficulties (BESD) from grades 5 to 8, (2) inclusive schools and special schools and (3) the students' perceptions of inclusion, comprising emotional inclusion, social inclusion and academic self-concept, as well as the students' perception of the class teachers' behavior in the dimensions 'care' and 'pressure for achievement'.

1.1. Students with Diagnosed BESD

Since the recruited sample solely consists of students with formally diagnosed BESD, first the used terminology will be specified. In accordance with the Standing Conference of the Ministers of Education and Cultural Affairs of the States in the Federal Republic of Germany [Kultusministerkonferenz], BESD is defined as one of seven special educational needs. In broad terms, BESD is described as 'a particularly serious educational problem characterized by particularly severe emotional and social developmental and behavioral disorders or by an accumulation of severe developmental risks' (Blumenthal et al. 2020). Against this background, BESD functions as a generic term for a broad range of different social, emotional and behavioral problems in childhood and adolescence. Although comorbid problems certainly occur (Schettini et al. 2021), a stable two-factor structure comprising internalizing and externalizing problems is considered empirically validated and has been replicated for decades in numerous cross-cultural and large-scale epidemiological studies (Klasen et al. 2017; Steffen et al. 2019). While internalizing problems are predominantly directed inwards and include depression, social withdrawal, anxiety and somatic complaints, externalizing problems, in contrast, are primarily directed outwardly and include aggressive, delinquent and hyperactive behavior (Klasen et al. 2017). Within the present paper, the term BESD is used due to its overall compatibility to the diversity and multidimensionality of the above outlined behavioral manifestations.

1.2. Inclusive and Special Education

While there has been a steady increase in the absolute number of students with BESD in inclusive schools over the past decade in Germany, significant proportions of these students are still being educated in special school settings. In this regard, recent statistical data imply that approximately 43% of all students with BESD in Germany attend special schools (KMK 2022). Although the overarching objective of both school types is to promote the students' social, emotional, and academic development, inclusive and special schools differ significantly in terms of their respective organizational structures. This particularly includes factors such as group size (inclusive: up to 31 students/special: up to 17 students), profession and personnel (inclusive: cooperation between general and special teachers / special: solely teachers of SEN and BESD) as well as academic standards, which can be considered higher at inclusive schools (Amrhein 2011; Stein and Stein 2014). These institutional and organizational differences lead to different in-school experiences and are likely to affect the quality of self-perceptions in school in students with BESD.

1.3. Perceptions of Inclusion

The students' emotional, social and academic self-perceptions can provide valuable contributions to the assessment of educational success in both inclusive and special schools (Zurbriggen et al. 2017). The Perceptions of Inclusion Questionnaire (PIQ) (Venetz et al. 2015) contributes to this topic by focusing on three distinct aspects, namely the students' perception of (1) emotional inclusion, with reference to overall well-being in school, (2) social inclusion, describing the quality of peer-relations in school and (3) academic self-concept. PIQ is based on the short version of the German Self-Report Questionnaire for Assessing Dimensions of Integration of Students (FDI 4–6) (Haeblerlin et al. 1989). Scale analyses for the English and German version of PIQ imply good psychometric properties with regard to factor structure, construct validity and internal consistency (DeVries et al. 2018; Knickenberg et al. 2022; Zurbriggen et al. 2017).

Concerning the comparative assessment of self-perceived inclusion in inclusive and special schools, a rather large body of research focusses on students with different SEN or specifically students with learning problems (Elbaum 2002; Kocaj et al. 2018; Kröske 2020; Stelling 2018). The few available studies on self-perceived inclusion in students with BESD report no significant differences in self-perceived emotional and social inclusion depending on school type (Chisolm 2015; Douma et al. 2021; Venetz et al. 2012) but comparatively higher values for academic self-concept in special education (Douma et al. 2021; Müller 2019; Venetz et al. 2012). Recent research furthermore indicates that students with internalizing problems in inclusive schools display particularly low values in emotional and social inclusion as well as in academic self-concept (Zdoupas and Laubenstein 2022). Further comparative research with special regard to students with BESD is needed in order to extend and validate the existing results. Discussing the findings in relation to school type, Douma et al. (2021) emphasize the importance of the teachers' behavior by stating that 'teachers within special schools have undergone more training to educate, stimulate and guide students with disabilities. As a result of their extensive training, they are better equipped to facilitate the social-emotional support needed by students with disabilities [. . .] focusing more on ability than disability and offering positive reinforcement' (p. 10).

1.4. Class Teacher Behavior

Emotional, social, and academic self-perceptions develop through engagement with the immediate environment and specifically through processes of interaction with significant others. In this regard Leflot et al. (2010) specify that 'interactions with significant others shape the sense of self by providing the child with information about how significant others view himself/herself, which is then incorporated into their self-concept' (p. 387). Classmates as well as teachers are considered to be primary interaction partners in school and can therefore function as important sources of self-related information. Due to the high extent of overall involvement in class, especially in primary and lower secondary level, class teachers are considered to be the main reference persons for the students' emotional, social and academic concerns in school. Against this background, interaction experiences with class teachers can be regarded as potential resources for self-related information in school.

In the following, empirical findings on the link between teacher behavior and emotional, social and academic self-perceptions are presented. Regarding emotional inclusion, Hascher and Hagenauer (2011) identified a strong relationship between high expressions of school well-being in secondary education and a teacher behavior which is perceived as emotionally approachable by students. Concerning specifically students with various SEN in inclusive education, Kröske (2020) reported a strong link between high well-being in school and the implementation of a learning environment, which is characterized by mutual support and appreciation. Regarding social inclusion, empirical findings indicate significant correlative relationships between self-perceived social acceptance and a teacher behavior which is perceived as caring, accepting and emotionally responsive (Hascher and Hagenauer 2011; Spilt et al. 2013; Verschueren et al. 2012). Differentiated findings can

also be presented for academic self-concept. Skaalvik and Skaalvik and Skaalvik (2013) identified a strong correlation between academic self-concept and learning goal structure. According to the authors, learning goal structure ‘emphasizes understanding, recognizes student effort and improvement, and considers mistakes to be part of the learning process. In such an environment, success is defined as improvement and ability judgements are self-referenced’ (p. 7). Although learning goal structure was considered a systemic component of school culture, the characteristics listed fundamentally refer to the teachers’ behavior in class. This is further confirmed by empirical findings, indicating that individualized performance feedback, reduced pressure for achievement and an error-friendly learning environment is associated with high expressions in academic self-concept (Gorges et al. 2018; Markussen 2004; Peetsma et al. 2001). In summary, the relationship between teacher behavior and emotional, social and academic self-perceptions seems to be divided into two distinctive aspects: into a predominantly emotional and social aspect (emotional and social inclusion and caring teacher behavior) as well as into a predominantly performance-related aspect (academic self-concept and reduced pressure for achievement). Since these socio-emotional and didactic aspects of teacher behavior are widely considered to be vital for successful education of students with BESD (Castello 2017), these empirical patterns are expected to be replicated in students with BESD in inclusive and special education.

2. Methods

2.1. Research Questions and Hypotheses

Taking into consideration the aforementioned research desiderata regarding self-perceived inclusion in students with BESD as well as the empirical findings on the relationship between self-perceived inclusion and perceived teacher behavior, the according research questions and hypotheses are as follows:

Research Questions:

Q₁: Do students with BESD in inclusive and special schools differ in their emotional inclusion?

Q₂: Do students with BESD in inclusive and special schools differ in their social inclusion?

Q₃: Do students with BESD in inclusive and special schools differ in their academic self-concept?

Q₄: Do students with BESD in inclusive and special schools differ in their perception of the class teacher’s behavior in the dimension “care”?

Q₅: Do students with BESD in inclusive and special schools differ in their perception of the class teacher’s behavior in the dimension “pressure for achievement”?

Research Hypotheses:

H₁: Class teacher behavior perceived as caring has a significant positive predictive value on emotional inclusion in students with BESD.

H₂: Class teacher behavior perceived as caring has a significant positive predictive value on social inclusion in students with BESD.

H₃: Class teacher behavior perceived as building pressure for achievement has a significant negative predictive value on academic self-concept in students with BESD.

2.2. Participants

Between December 2019 and March 2020, $N = 119$ students with formally diagnosed BESD from grade five to eight were questioned in seven different inclusive and special schools in North-Rhine Westphalia, Germany. The sample recruitment was non-probabilistic. Table 1 displays the distribution of students by school type, gender and grade level.

Table 1. Socio-demographic data.

	Inclusive Schools		Special Schools		Total	
	Number	Percent	Number	Percent	Number	Percent
Total	n = 57	47.9%	n = 62	52.1%	n = 119	100%
Gender						
male	n = 41	71.9%	n = 39	62.9%	n = 80	67.3%
female	n = 16	28.1%	n = 22	35.5%	n = 38	31.9%
non-binary	n = 0	0.0%	n = 1	1.6%	n = 1	0.8%
Grade						
5	n = 17	29.8%	n = 15	24.2%	n = 32	26.9%
6	n = 10	17.6%	n = 13	21.0%	n = 23	19.3%
7	n = 19	33.3%	n = 19	30.6%	n = 38	31.9%
8	n = 11	19.3%	n = 15	24.2%	n = 26	21.9%

The students surveyed were distributed in approximately equal proportions among classes and school types with 57 students (47.9%) attending inclusive schools and 62 students (52.1%) attending special schools. The students' age ranged from 10 to 14 with a mean age of 12.1 years. A gender-specific evaluation of the data, furthermore, indicated a considerable overbalance of male participants (67.3%). This statistical ratio was observable in both educational settings (special schools: 62.9% to 35.5%/inclusive schools: 71.9% to 28.1%).

2.3. Measures

The students' self-perceptions in school were assessed via the German version of PIQ (Venetz et al. 2015) by using the three subscales emotional inclusion (EMI), social inclusion (SOI) and academic self-concept (ASC). Exemplary item wording: *I like it in school* (EMI), *I have very good relationships with my classmates* (SOI) and *I do well in my schoolwork* (ASC). Categories in the four-point response format ranged from 0 = *not at all true* to 3 = *certainly true*.

The perception of the class teacher's behavior was assessed via an adaptation of the Landauer Skalen zum Sozialklima (LASSO 4–13) questionnaire (von Saldern and Littig 1987). By using the subscales 'care' (CA) (e.g., *If I want to discuss something with my class teacher, he finds time for it*) and 'pressure for achievement' (PA) (e.g., *The lessons with my class teacher are often too fast for me.*) The socio-emotional as well as the performance related aspects of the teachers' behavior were assessed. The four-point response format was continued in the second part of the questionnaire.

2.4. Analyses

First, confirmatory factor analysis (CFA) and reliability analyses (RA) were conducted in order to validate the structure and the reliability of the subscales as well as to ensure the replicability of the present study. CFA was applied for both parts of the questionnaire simultaneously using robust maximum likelihood estimation (MLR). Evaluated fit indices included comparative fit index (CFI), root mean square error of approximation (RMSEA), standardized root mean residual index (SRMR) and value for adjusted degrees of freedom ($\frac{\chi^2}{df}$). The respective threshold values were $CFI \geq 0.900$, $RMSEA$ and $SRMR \leq 0.080$ and $\frac{\chi^2}{df} \leq 2.5$ (Hu and Bentler 1999). Correlations, one-way analyses of variance (ANOVA) and structural equation modelling (SEM) as well as multigroup analyses (MGA) were applied in order to examine the relationships between the included variables. Specifically, ANOVA was utilized to identify possible significant group differences in perceptions of inclusion and perceived teacher behavior between students with BESD in inclusive and special schools (Q_1 to Q_5). Regarding the formulated hypotheses (H_1 to H_3), in accordance with the empirical findings outlined above, CA and PA were integrated as exogenous variables, whereas EMI, SOI and ASC were integrated as endogenous variables into the SEM. SEM was utilized in order to examine the structure and the direction of the relationships between the variables by referring to the current state of research specified above. The statistical analyses were calculated by using *IBM SPSS Statistics 26* as well as *IBM SPSS Amos 26 Graphics*.

3. Results

3.1. Scale Analyses and Correlations

With regard to the results of CFA, in which all latent variables were included simultaneously, the factor structure was confirmed with $CFI = 0.909$ and $\chi^2_{df} = 1.32$. While $RMSEA = 0.062$ indicated satisfactory model fit, $SRMR$ was slightly above the threshold value with $SRMR = 0.084$. Considering the other fit metrics, an overall satisfactory model fit can however be suggested. All items display substantial loadings on the corresponding factor ($0.55 \leq \lambda \leq 0.88$). Alpha coefficients for EMI ($\alpha = 0.87$), SOI ($\alpha = 0.75$), ASC ($\alpha = 0.77$), CA ($\alpha = 0.89$) and PA ($\alpha = 0.78$) suggest adequate subscale reliability. Highly significant correlations between ASC and PA ($r = -0.363, p < 0.01$) and between SOI and CA ($r = 0.291, p < 0.01$) can be identified (see Table 2).

Table 2. Scale statistics, reliability and correlations.

	M	SD	α	EMI	SOI	ASC	CA	PA
Emotional Inclusion (EMI)	2.81	0.86	0.87	1	0.15	0.19 *	0.22 *	-0.09
Social Inclusion (SOI)	3.03	0.64	0.75	0.15	1	0.14	0.29 **	0.03
Academic Self-Concept (ASC)	2.70	0.70	0.77	0.19 *	0.14	1	0.11	-0.36 **
Care (CA)	2.89	0.72	0.89	0.22 *	0.29 **	0.11	1	-0.29 **
Pressure for Achievement (PA)	2.23	0.69	0.78	-0.09	0.03	-0.36 **	-0.29 **	1

* $p < 0.05$, ** $p < 0.01$.

3.2. Differences between Students in Inclusive and Special Schools

The calculated one-way ANOVA shows no significant mean differences in EMI ($F(1.117) = 1.488; p = 0.225$; partial $\eta^2 = 0.013$), SOI ($F(1.117) = 0.001; p = 0.972$; partial $\eta^2 < 0.000$) and CA ($F(1.117) = 3.636; p = 0.059$; partial $\eta^2 = 0.030$) with respect to school setting. Descriptive statistics show that EMI, SOI and CA tend to be high in both school types. The ANOVA for ASC ($F(1.117) = 20.935; p < 0.001$; partial $\eta^2 = 0.152$) and PA ($F(1.117) = 16.744; p < 0.001$; partial $\eta^2 = 0.125$) on the other hand indicate highly significant main effects for school type. Descriptive statistics show higher scores for students with BESD in special schools for ASC and in inclusive schools for PA (see Table 3). Overall, it can be concluded that statistically significant differences can only be identified for ASC (Q_3) and PA (Q_5).

Table 3. Descriptive statistics for educational setting.

		M	SD	n
EMI	Inclusive Schools	2.70	0.84	57
	Special Schools	2.88	0.79	62
	Total	2.79	0.81	119
SOI	Inclusive Schools	3.05	0.64	57
	Special Schools	3.05	0.65	62
	Total	3.05	0.64	119
ASC	Inclusive Schools	2.42	0.71	57
	Special Schools	2.96	0.58	62
	Total	2.70	0.70	119
CA	Inclusive Schools	2.75	0.73	57
	Special Schools	3.00	0.69	62
	Total	2.88	0.72	119
PA	Inclusive Schools	2.50	0.71	57
	Special Schools	2.02	0.56	62
	Total	2.25	0.67	119

3.3. Links between Perceptions of Inclusion and Class Teacher Behavior

After successful premise testing for multivariate normality, absence of auto-correlation, satisfactory identification of model parameters and fit metrics, the following results for the calculated SEM can be reported (see Figure 1):

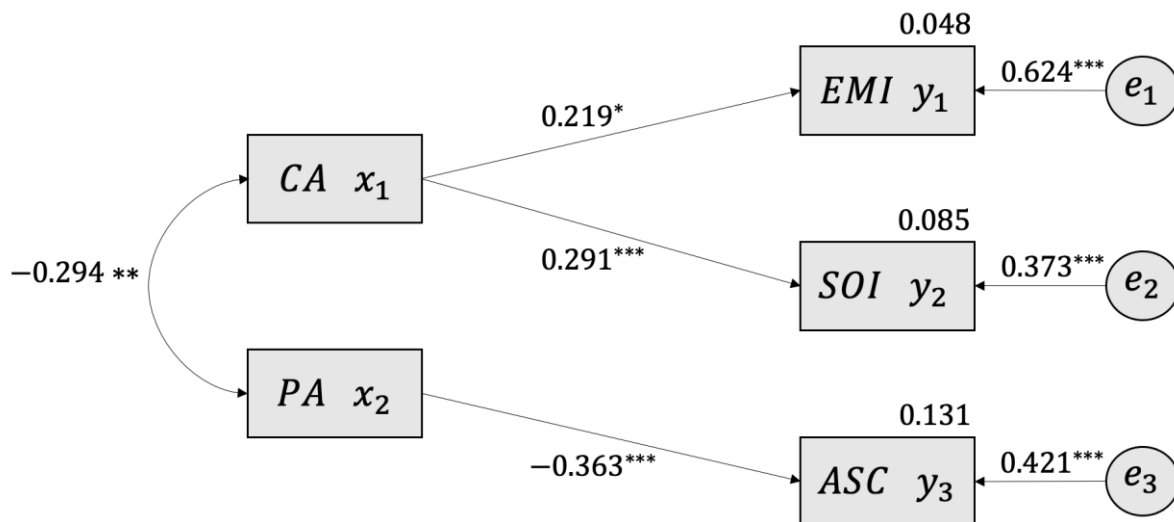


Figure 1. Structural equation model (SEM)—results. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

CA has a significant positive predictive value on EMI ($\beta = 0.219$, $p = 0.015$) as well as a highly significant positive predictive value on SOI ($\beta = 0.291$, $p < 0.001$). Values for R^2 with 0.048 (EMI) and 0.085 (SOI) indicate weak explanation of variance through the exogenous variable CA (Cohen 1988). Consistent with expectations, PA has a highly significant negative predictive value on ASC ($\beta = -0.363$, $p < 0.001$). Coefficient of determination indicates moderate explanation of variance with a value of $R^2 = 0.131$ (Cohen 1988). Furthermore, a highly significant correlation is indicated between the exogenous variables CA and PA ($r = -0.294$, $p < 0.01$). Overall, it can be summarized that the previously formulated hypotheses (H_1 , H_2 and H_3) can be accepted.

A subsequent group analysis is further utilized in order to test whether ‘school setting’ functions as a potential moderating variable in the regression models. Therefore, t-tests for all endogenous variables were applied (Urban and Mayerl 2018). Regarding the unstandardized coefficients as well as the calculated t-values, two significant moderator effects for ‘school setting’ can be identified: (1) CA has a significantly stronger effect on SOI in special schools ($t = -2.03$, $p < 0.001$) and (2) PA has a significantly stronger effect on ASC in inclusive schools ($t = -2.03$, $p = 0.002$).

4. Discussion

The present study investigated the perceptions of inclusion in students with formally diagnosed BESD in inclusive and special schools by taking into account perceived aspects of social and didactic characteristics of the class teachers’ behavior as possible predicting variables. In general, the students reported rather positive perceptions of school inclusion and class teacher behavior in both school settings. Inferential statistics, however, indicate significantly higher values in ASC for students in special education as well as significantly higher scores in PA for students in inclusive education. Moreover, a structural relationship between perceptions of inclusion and perceived class teacher behavior was identified with CA predicting EMI and SOI as well as PA predicting ASC. Concerning this structural pattern, a significant moderating effect through ‘school setting’ was detected.

Regarding the results on the perceptions of inclusion and teacher behavior in inclusive and special school settings (Q_1 to Q_5), especially the significant results on the performance-related variables (ASC and PA) are of interest. The identified reduced ASC of students with

BESD in inclusive schools is well supported by previous studies which focused on students with various SEN (Gorges et al. 2018; Kocaj et al. 2018; Stelling 2018) or surveyed solely students with BESD (Müller 2019). In this context, the results on PA can be applied for a first interpretative approach. The higher academic standards in inclusive schools (Reid et al. 2004), as well as the here identified high levels of perceived pressure for academic achievement in inclusive schools could contribute to the students' ASC. The additional permanent performance-related comparison to higher achieving students without SEN and BESD in class (Fang et al. 2018) could eventually lead to the significantly more negative perceptions of the student's own academic competencies. It remains to be highlighted that the hypothesized relationships are not statistically provable with the present research design. More research which includes the students' actual academic performance as well as the general academic performance level of the reference group is required.

Regarding the results on the link between perceived school inclusion and perceived teacher behavior (H_1 to H_3), a statistical pattern was identified. While behavioral characteristics that are perceived as caring (CA) are associated with high levels of EMI and SOI, teacher behavior perceived as increasing pressure for academic achievement (PA) is associated with low levels of ASC. Thus, it appears that the relationships among the included variables can be divided into a predominantly emotional and social aspect as well as a predominantly performance-related aspect. The identified empirical pattern confirms previous empirical research findings with regards to emotionally supportive teacher behavior predicting high emotional school-wellbeing in students with (Kröske 2020) and without SEN (Hascher and Hagenauer 2011) as well as predicting positive social self-perceptions in higher secondary education (Hascher and Neuenschwander 2011). This also applies to reduced pressure for academic achievement predicting high manifestations of academic self-concept in inclusive (Skaalvik and Skaalvik and Skaalvik 2013) and special educational environments (Elbaum 2002; Markussen 2004) as well as in primary education (Leflot et al. 2010). Although explanation of variance for EMI (4.8%) and SOI (8.9%) through CA is rather weak (Cohen 1988), the importance of the perceived class teachers' behavior should not be underestimated due to other potentially dominant predictors on the individual and systemic level (Hascher and Hagenauer 2011). While the link between CA and EMI and SOI proves to be significantly stronger in special schools, the link between PA and ASC turns out to be significantly stronger in inclusive schools. It is to be emphasized that the social and didactic characteristics of the class teachers were solely assessed from the students' perspective. Given the research design, direct conclusions regarding the link between the perceptions of inclusion and the actual teacher behavior are not possible.

4.1. Limitations

Several limitations remain. Although differences and relationships concerning self-perceived inclusion and perceived teacher behavior in students with diagnosed BESD in inclusive and special education have been addressed on a descriptive level as well as partially through inferential statistical methods, the cause-effect relationships still remain unclear. The findings should therefore be interpreted with an abundance of caution, since the relatively small number of variables included could have resulted in confounding bias. Future research should therefore examine the psychometric characteristics of students with BESD in longitudinal designs with a wider set of variables. Furthermore, the social and didactic characteristics of the teachers' behavior were assessed from the students' perspective. In this context, a tendency towards systematically negative biased perceptions of social interaction processes in students with BESD can be assumed. The empirical phenomenon of 'social cognitive bias' has repeatedly been confirmed with regards to children and adolescents with internalizing and externalizing problems (Calvete and Orue 2012; Dodge et al. 2013). Thus, direct conclusions concerning the class teachers' actual behavior in school cannot be formulated. Future research should therefore consider further (exogenous) measures in order to assess teacher behavior. Additionally, with CA and PA, only two selected aspects of the rather comprehensive subject of teacher behavior have

been considered. Further empirical studies should therefore consider a more differentiated approach in order to allow a broader evaluation of possible predicting behavior variables. Lastly, with featuring only two larger cities in the German federal state of North-Rhine Westphalia, the recruited sample cannot be considered representative. Further comparative studies with larger sample size from various regions should be conducted.

4.2. Conclusions

The present study found evidence on the relationship between emotional inclusion, social inclusion and academic self-concept and the perception of the class teachers' behavior in school. It can be concluded that perceived class teacher behavior might have a (weak to moderate) effect on school-well-being (EMI), self-perceived social acceptance (SOI) and self-perceived academic achievement (ASC) in students with formally diagnosed BESD. Furthermore, especially performance-related aspects (ASC and PA) are perceived as significantly more negative in inclusive education. As indicated above, further broad-scale and longitudinal research with special regards to students with BESD is required, in order to validate and deepen the present empirical findings.

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