

Classroom Size and Frequency of Challenging Behaviours in Relation to the Support that Teachers Need in Managing those Behaviours

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Abstract

A sample of 706 teachers across Croatia were surveyed on the support needed to address four types of problem behaviours (i.e., distractibility, disobedience, aggression, delinquency) observed in their classrooms. Results indicated that class size was not predictive of teachers' need for support. Instead, the number of boys and of girls whose challenging behaviour required management effort was predictive of the support that teachers needed for managing problem behaviours. Moreover, the specific pattern of behaviours that require support differs by the gender of the students displaying the problem behaviour. Implications for future research are recommended.

Key Words: Classroom Management, Challenging Behaviours, Class Size, Teacher Support

1.0 Introduction

Classroom management is a complex component of the teaching process with many variables thought to influence a teacher's ability to effectively manage the classroom. An obvious impediment to classroom management is the number of students in the class displaying problem

behaviour. Unfortunately, problem behavior is commonplace in schools across the world (e.g., Campbell, 1995; Lavigne, et al., 1996; Qu & Kaiser, 2003; West, Denton, & Germino-Hausken, 2000). And these problem behaviors can influence a teacher's perception of their ability to manage the classroom. For example, Hyland, NiMhaille, Lodge and McGilloway (2014) found higher levels of emotional, conduct and peer problem behaviors to be associated with lower teacher confidence to manage problems in their classrooms.

Another variable thought to influence classroom management is class size. Indeed, in the United States it is common for the number of students in a classroom to be included in teaching contracts, requiring the provision of additional support for teachers (e.g., para-professional support) when the number of students exceeds the union negotiated class size. In general, classroom management remains a major concern for those in the teaching profession (Chan, 2008; Fontaine, Kane, Duquette, & Savoie-Zajc, 2012; Ingersoll, 2001; Melnick & Meister, 2008; Wong, Chong, & Choy, 2012). Yet what is less well understood is how the nature of classrooms influence a teacher's need for support to manage their classrooms. Thus, the aim of this study was to more closely examine the relation of class size and the types of problem behaviour encountered in the classroom to teachers' perceptions of their need for support to address these behaviors. We included student gender in the investigation as prior research has indicated differences in teachers concerns for behaviors of boys and girls (Beaudoin, Skočić Mihić & Lončarić, 2016; Hyland et al., 2014).

2. Method

2.1 Participants

A total of 706 teachers serving students in grades one through four were recruited from 73 primary schools across the Republic of Croatia (94.6% female, 3.5% male and 1.8% not reported). The sample consisted of classroom teachers (91%), substitute teachers (4%), teachers in afterschool programs (4%) and assistants in teaching (1%). The average class size was 17.75 (SD = 6.89) pupils and the average school size was 220.24 (SD = 110.22) pupils. The mean age of respondents was

approximately 45 years ($SD = 9.76$) and average teaching experience was 20 years ($SD = 10.7$).

2.2 Measures

Background information was collected from participants and included teachers' age and years of experience, class size, teaching role (position), and number and gender of students in the classroom.

The Child Behavior Survey (Martin, Linfoot, & Stephenson, 1999) was used in this study. It contains a list of twenty problem behaviors in four subscales: distractibility subscale (e.g., "doesn't remain on-task for a reasonable time"), disobedience subscale (e.g., "does not follow established class rules"), aggression subscale (e.g., "expresses anger inappropriately"), and delinquency subscale (e.g., "lies"). Teachers' perception of level of support needed to address the misbehavior was assessed on a four-point scale (1 = not at all to 4 = a lot of support), separately for boys and girls for each item in the survey.

2.3 Procedure

A representative stratified sample of two Croatian statistical regions (36% Coastal and 64% Continental regions of Croatia) was determined from a national database of primary schools in Croatia. A letter of invitation, the questionnaire, and a statement of approval for the study from the Ministry of Education, Science and Sports were sent to principals of randomly selected schools via email, representing approximately 10% of primary schools. Principals were then telephoned and explained purpose of study and 90% agreed to participate. The response rate was high, with approximately 8% of primary school teachers participating in the study. Instructions for completing the survey were provided and teachers' informed consent was obtained.

3.0 Results

In order to determine whether the number of boys and girls whose behaviour requires additional management can explain the teachers' need

for support in dealing with the specific behaviours of distractibility, disobedience, delinquency and aggression beyond class size (measured as the number of students in the class), we performed a hierarchical regression analysis. Number of boys and girls in class were entered as predictors in the first model, and teacher information about the number of boys and girls whose behaviour requires additional management were added as predictors in the second model of regression analysis. These two nested models of hierarchical regression analysis were compared in order to assess significant predictors and relative importance of additional teacher information to the prediction of needed support for behaviours related to distractibility, disobedience, delinquency and aggression, separately for boys and girls.

Table 1. Summary of hierarchical regression analysis predicting support that teachers need with distractibility behaviours of boys and girls

	Model 1			Model 2		
	B	SE B	β	B	SE B	β
DV: support that teachers need with distractibility behaviours of boys						
Constant	1.81	.13		1.70	.13	
Nb	.03	.01	.12	-.00	.01	-.01
Ng	-.00	.02	-.01	.00	.02	.01
N CB b				.19	.03	.35***
N CB g				-.03	.06	-.03
R2		.01			.12	
F for change in R2		2.41			18.68***	
DV: support that teachers need with distractibility behaviours of girls						
	B	SE B	β	B	SE B	β
Constant	1.36	.11		1.39	.11	
Nb	-.00	.01	-.01	-.00	.01	-.02
Ng	.02	.01	.12	.01	.01	.03
N CB b				-.02	.03	-.05
N CB g				.20	.05	.29***
R2		.01			.08	

F for change in R2	1.63	8.76***
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Note: DV: Dependent variable; Nb/g: number of boys/girls in classroom; NCBb/g: number of boys/girls in classroom exhibiting behaviours that require additional management; ***p< .001

As indicated in Table 1, the number of boys and girls in the classroom was not predictive of the support teachers needed to address distractibility behaviours of boys or girls. However, information that teachers provided about the number of boys and girls that exhibited behaviour requiring additional management was predictive of additional support teachers needed to address distractibility behaviours. Higher number of boys requiring additional management was related with teachers' need for more support in managing distractibility behaviour of boys, and higher number of girls requiring additional management was related with a higher need for more support in managing distractibility behaviour of girls.

Table 2. Summary of hierarchical regression analysis predicting support that teachers need with disobedient behaviours of boys and girls

	Model 1			Model 2		
	B	SE B	β	B	SE B	β
DV: support that teachers need with disobedient behaviours of boys						
Constant	1.62	.14		1.48	.13	
Nb	.03	.01	.16*	-.00	.01	-.02
Ng	-.01	.02	-.04	.00	.02	.01
N CB b				.26	.03	.48***
N CB g				-.18	.06	-.18**
R2		.02			.19	
F for change in R2		2.67			28.72***	
	B	SE B	β	B	SE B	β

DV: support that teachers need with disobedient behaviours of girls						
Constant	1.21	.10		1.24	.09	
Nb	-.01	.01	-.06	-.01	.01	-.10
Ng	.02	.01	.16*	.01	.01	.09
N CB b				-.01	.03	-.02
N CB g				.20	.05	.31***
R2		.02			.10	
F for change in R2		2.10			11.18***	

Note: DV: Dependent variable; Nb/g: number of boys/girls in classroom; NCBb/g: number of boys/girls in classroom exhibiting behaviours that require additional management

The number of boys and girls in the classroom was not predictive of support teachers needed with disobedient behaviours of boys or girls (Table 2). However, information that teachers provided about number of boys and girls that exhibited behaviour requiring additional management was predictive of additional support teachers needed with disobedience. As can be expected, higher number of boys requiring additional management was related with teachers need for more support in managing disobedient behaviour of boys, and higher number of girls requiring additional management was related with higher need for more support in managing disobedient behaviour of girls, and, unexpectedly, lower need for additional support in managing disobedient behaviours of boys. That means that, all other predictors being equal, as the number of girls that teachers perceived as challenging for behavioural management increased, teachers need for support in managing disobedient boys decreased.

There are several possible explanations of such findings: for example, the presence of girls whose behaviours require additional management may significantly shift teachers' focus from the disobedient behaviour of boys. Alternatively, boys might demonstrate less disobedient behaviours in a classroom where more girls' exhibit challenging behaviours that require additional management.

Table 3. Summary of hierarchical regression analysis predicting support that teachers need with delinquent behaviours of boys and girls

	Model 1			Model 2		
	B	SE B	β	B	SE B	β
DV: support that teachers need with delinquent behaviours of boys						
Constant	1.14	.10		1.15	.10	
Nb	.01	.01	.07	.00	.01	.03
Ng	.01	.01	.05	.01	.01	.04
N CB b				.03	.03	.09
N CB g				.03	.05	.04
R2		.01			.02	
F for change in R2		1.46			1.23	
	B	SE B	β	B	SE B	β
DV: support that teachers need with delinquent behaviours of girls						
Constant	1.21	.08		1.22	.08	
Nb	-.00	.01	-.04	-.00	.01	-.04
Ng	.00	.01	.00	-.01	.01	-.04
N CB b				-.02	.02	-.09
N CB g				.10	.04	.20*
R2		.00			.03	
F for change in R2		.23			3.30	

Note: DV: Dependent variable; Nb/g: number of boys/girls in classroom; NCBb/g: number of boys/girls in classroom exhibiting behaviours that require additional management

Results shown in Table 3 indicate that the number of boys and girls in the classroom was not predictive of the support teachers needed with delinquent behaviour of boys or girls. The number of boys that exhibited behaviour requiring additional management as self-reported by teachers was also not predictive of additional support teachers needed with delinquent behaviour of boys. On the other hand, higher number of girls

requiring additional management was related with higher need for more support in managing delinquent behaviour of girls. One possible explanation of this finding is that delinquency is perceived as more problematic in girls, thus requiring more attention and support than with boys.

Table 4. Summary of hierarchical regression analysis predicting support that teachers need with aggressive behaviours of boys and girls

	Model 1			Model 2		
	B	SE B	β	B	SE B	β
DV: support that teachers need with aggressive behaviours of boys						
Constant	1.45	.13		1.38	.13	
Nb	.03	.01	.15	.00	.01	.01
Ng	-.01	.02	-.04	-.00	.02	-.02
N CB b				.22	.04	.43***
N CB g				-.19	.07	-.19**
R2		.02			.14	
F for change in R2		2.23			18.18***	
	B	SE B	β	B	SE B	β
DV: support that teachers need with aggressive behaviours of girls						
Constant	1.10	.08		1.11	.08	
Nb	-.00	.01	-.03	-.01	.01	-.08
Ng	.02	.01	.12	.01	.01	.09
N CB b				.02	.02	.05
N CB g				.07	.04	.13
R2		.01			.03	
F for change in R2		1.21			2.66	

Note: DV: Dependent variable; Nb/g: number of boys/girls in classroom; NCBb/g: number of boys/girls in classroom exhibiting behaviors that require additional management

Results presented in Table 4 also indicate that the number of boys and girls in the classroom was not predictive of the support teachers needed with aggressive behaviour of boys or girls. Higher number of boys that exhibit behaviour requiring additional management as self-reported by teachers was related with higher need for more support in managing aggressive behaviour of boys. On the other hand, higher number of girls requiring additional management was not predictive of teachers need for additional support with aggressive behaviour of girls. One possible explanation of this finding is that aggression is perceived as more problematic in boys, thus requiring more attention and support than with girls.

Finally, there was yet another unexpected finding in this set of analyses. Higher number of girls requiring additional management was related with lower need for additional support in managing aggressive behaviours of boys. That means that, all other predictors being equal, as the number of girls that the teachers perceived as challenging for behavioural management increased, teachers need for support in managing aggressive boys decreased. As in the previous finding regarding disobedient behaviours, there are several possible explanations of such findings: it is possible that presence of girls whose behaviours require additional management can significantly shift teachers' focus from aggressive behaviour of boys. Alternatively, boys might demonstrate less aggressive behaviours in classroom where more girls exhibit challenging behaviours requiring additional management.

4. Discussion

These results support the decision to analyse separately the number of boys and girls and measure separately support needed for different behaviours of boys and girls, as gender obviously plays an important role in classroom dynamics. The number of boys and girls were differentially predictive for needed support, so it would be wrong to use the aggregated measure of class size or measure of needed support without differentiating them in terms of the student's gender. For example, the number of girls with problems behaviours, and not the number of boys was predictive of needed additional support for delinquent behaviours. On the other hand, the number of boys with problem behaviours, and

not number of girls was predictive of needed additional support for aggressive behaviours. Also, the number of boys and girls needs to be considered simultaneously predicting needed support as it was found that a higher number of girls with problem behaviours was predictive of reduced support needed for delinquent and aggressive behaviour in boys. Further research is needed to fully understand this relationship and to provide evidence for hypothesized causes of this pattern of statistical findings.

5. Conclusion

These results extend our understanding of the relation between class size, behaviour problems and student gender and how these affect the support teachers will need related to classroom management in important ways. They indicate that class size itself is not predictive of the support that teachers will need in managing challenging behaviour within their classrooms. Instead, it is the interplay of the nature and extent of behaviour problems seen in the classroom and student gender that appears to predict whether or not a teacher will need assistance to address behaviour in their classroom. It would behoove those investigating how best to support teachers with classroom management to take a deeper consideration of the realities of student behaviour, including how these problem behaviours might be manifested differently for boys and girls and how these differences influence a teacher's need for additional support.

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