Teacher-student relationships, social and emotional skills, and emotional and behavioural difficulties

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ABSTRACT
In this study, the role of teacher-student relationships and students’ social and emotional skills as potential predictors of students’ emotional and behavioural difficulties was investigated by tapping into 962 primary school students’ perceptions via questionnaires. While significant correlations were found linking teachers’ interpersonal behaviour and students’ social and emotional skills to emotional and behavioural difficulties, data analysis indicated that students’ social and emotional skills were found to be more of a determinant of their behaviour than teachers’ interpersonal behaviour. Results are interpreted in relation to systems perspective and Social and Emotional Learning theory, and practical implications of the findings are discussed.

KEYWORDS
Emotional and behavioural difficulties, social and emotional learning, teacher-student relationships

RÉSUMÉ
Dans cette étude, on a examiné le rôle des relations enseignant-étudiant et les compétences sociales et affectives des étudiants comme prédicteurs potentiels des difficultés émotionnelles et comportementales d'étudiants en s'appuyant sur les perceptions des 962 élèves des écoles primaires identifiées par questionnaire. Alors que des corrélations significatives ont été trouvées en reliant les comportements interpersonnels des enseignants et des compétences sociales et affectives des étudiants des difficultés émotionnelles et comportementales, l’analyse des données a indiqué que les compétences sociales et affectives des étudiants ont été trouvées à plus d'un facteur déterminant de leur comportement que les comportements interpersonnels des enseignantes. On interprète les résultats en ce qui concerne la perspective systémique et la Théorie de l’Apprentissage sociale et émotionnel, et on discute des implications pratiques des conclusions.

MOTS-CLÉS
Difficultés émotionnelles et comportementales, apprentissage social et émotionnel, relations enseignant-étudiant
INTRODUCTION

Children’s emotional and behavioural difficulties are the result of multiple risk factors working in concert with one another. Social, environmental and biological factors are considered to mutually influence each other to form a system of “correlated constraints” in which difficulties in one domain maintain difficulties in another (Sutherland & Oswald, 2005). The school environment consists of such a system, in which behaviour patterns are products of a dynamic relation between the individuals and their environment. In this context, not only are the students shaped by their environment, but they also have an effect on that environment. At this point, a question arises: what aspects related to classroom context, teachers or students themselves are likely to be most important in predicting school behaviour?

Existing research has implicated the role of both classroom and teacher factors as being related to students’ behaviour. In particular, such research points to the important role of relationships with teachers and children as strong predictors of a child’s behaviour (Wubbels, 2005; Wubbels & Brekelmans, 2005). Another trend of research underlines the implementation of social skills programmes for students with emotional and behavioural difficulties or to whole student populations (Cooper & Jacobs, 2011), denoting that the lack of appropriate social or emotional skills is also a strong predictor of a child’s behaviour. Finally, researchers also agree that disclosure of the underlying factors of a student’s adjustment difficulties is key to diminishing social and behavioural difficulties, and that this information should emanate from the student’s own self-perceptions (Ryan & Shim, 2008).

Teachers’ interpersonal behaviour (Wubbels et al., 2006) has received a generous amount of attention in research, particularly in secondary students’ achievement outcomes. Also, there is considerable evidence for the implementation of Social and Emotional Learning theory toward students’ behaviour difficulties (Ogden 2001; Pakahslati, Karjalainen & Keltikangas-Jarvinen, 2002). However, far less attention has been paid to the effect that both student-teacher relationships and students’ social and emotional skills have on their emotional and behavioural difficulties in the classroom. Furthermore, educational researchers need to explore the mechanisms underlying the complex relationships that may impact the behaviour of students.

The current study supplements and furthers the existing body of research by investigating the correlations between teachers’ interpersonal behaviour and students’ social and emotional skills, as well as the degree of influence they have on students’ emotional and behavioural difficulties. A model for interpreting these difficulties is also devised according to primary students’ own perceptions. First, we will discuss some studies that are relevant in this respect; then, we will present the approach taken in the current study.

Teacher-student relationships and students’ emotional and behavioural difficulties

There is a growing body of evidence claiming that supportive teacher-student relationships play an important role in a healthy classroom environment (Davis, 2001), as well as that they encourage students’ connections to school and the production of desired outcomes for students, both socially and academically (den Brok et al., 2010; Jennings & Greenberg, 2009).

The influence of the affective quality of teacher-student relationships on students’ perceptions may be especially true for children with behavioural problems (Henricsson & Rydell, 2004; Hughes, Cavell & Wilson, 2001). For instance, adjustment problems in schools have been linked to the failure of classroom environments to meet students’ needs for a feeling of belonging to the classroom (Martin & Dowson, 2009). Inadequate relations with a teacher may lead to an aversion towards school and feelings of disengagement. When students feel alienated from
school, they are at greater risk of developing antisocial behaviours, delinquency and academic failure (U.S. Department of Education, 1998). Dutch researchers (Wubbels, Creton & Holvast, 1988) investigated teacher behaviour in classrooms from a communication systems perspective. Within the communication systems perspective, it is assumed that the behaviours of the participants mutually influence each other. Wubbels, Creton & Holvast (1988) interpret students’ difficulties as the result of an interaction between teachers and students. They focused on an interpersonal perspective on teaching, which means that teacher behaviour is described and measured in terms of the teacher-student relationship, according to students’ perceptions. Following this conceptual framework, research has evolved to outline the relationships between teachers’ interpersonal behaviour and the cognitive and affective outcomes of primarily secondary students (den Brok, Brekelmans & Wubbels, 2004; Wubbels & Brekelmans, 2005; Wubbels, 2005). Surprisingly, research employing the systems perspective to interpret primary students’ emotional and behavioural difficulties is rather limited. Unfortunately, little is known about how the teacher-student relationships may influence students’ behavioural adjustments (Birch & Ladd, 1988). The communication systems perspective is strong in depicting actual classrooms and students’ perceptions, but it is not well developed in its theoretical explanations of the underlying processes linking teacher-student relationships and students’ emotional and behavioural difficulties. For example, the literature is ambiguous as to which teacher’s dimensions are most critical for particular student emotional or behavioural difficulties, or what processes mediate the relations of different aspects of teacher behaviour and adaptive students’ behaviour. The current study attempted to add to the literature by investigating teacher-student relationships with regard to primary students, as a potential contributor to students’ emotional and behavioural difficulties in class. It attempted to delineate the paths in which teacher-student relationships affect students’ behaviour and the benefits from adopting a relational perspective in the study of emotional and behavioural difficulties. It was hypothesised that positive and friendly relationships between the teacher and students would be associated with a decrease in antisocial and emotional difficulties.

Students’ social and emotional skills and emotional and behavioural difficulties

The systems approach attempts to understand the functioning of a communicative system rather than examine the individual characteristics of the participants. Within this framework, the problems between teacher and students are not deduced from the characteristics of individual students or teachers, but rather from the typology of the classroom system formed by teachers and students (Wubbels, Creton & Holvast, 1988). McLaughlin (2008) denoted the dangers in solely adopting an individualistic programmatic approach and suggested a wider emphasis on relationships, pedagogy and community building in the development of emotional well-being in young people. Based on Goleman’s (1995; 1998) research on emotional intelligence she contended that children learn early on, from the reactions of adults, how to manage their feelings and respond to and internalise these reactions, and concluded that children’s emotional skills such as the capacity to regulate emotions could be learned through relationships with significant others. The implications for pedagogy and teacher-student relationships are profound, and have been informed by the Social and Emotional Learning (SEL) movement. The SEL movement supports the axiom that the cultivation of social and emotional skills to children is related to educational goals and is considered crucial for the healthy psychological adjustment of children and adolescents (Ciarrochi & Scott, 2006; Elias, 1997; Hastings et al., 2000; Pakaslahti, Karjalainen & Keltikangas-Jarvinen, 2002).
The SEL movement’s main contribution to educational settings is with regard to children with emotional and behavioural difficulties. Ogden (2001) asserted that socially competent students are less engaged in problematic behaviours, are better at making friendships and have more effective ways of dealing with authority, conflict resolution and problem solving than their more disruptive peers. Adolescents with poor social and emotional skills are more likely to display emotional and behavioural difficulties (Poulou, 2009), feel withdrawn and excluded, and consequently are more likely to behave in anticonventional ways (Petrides et al., 2004). The current study investigated the role of social and emotional skills in determining students’ emotional and behavioural difficulties. However, skills training interventions by themselves do not improve children’s peer status or their teacher ratings regarding their behaviour. Rather, interventions which focus directly on the affective quality of teacher-student relationships could be a helpful alternative to skills-training approaches (Hughes, Cavell & Wilson, 2001). Based on these assumptions, the current study examined the independent contribution of teacher-student relationships and students’ social and emotional skills to students’ emotional and behavioural difficulties.

The current study
The current study attempts to identify the effect of teacher-student relationships and students’ social and emotional skills to students’ emotional and behavioural difficulties, and devise a heuristic model with the potential predictors of emotional and behavioural problems in classrooms. In line with social-cognitive theories, the study proposes that students’ perceptions of the classroom environment effect their adaptive behaviour. In fact, it is the functional significance or meaning of the environment to the individual, rather than the environment per se, that is the most important aspect of concern for the investigation of adjustment in schools (Ryan & Grolnick, 1986). Therefore, in our study, the major variable of interest was individual students’ perceptions of the degree to which teacher-student relationships and students’ skills afforded emotional and behavioural difficulties. And although students at the end of primary education are able to provide stable, reliable and valid ratings of teacher behaviour (den Brok, Brekelmans & Wubbels, 2004), their own perceptions of their experiences and relationships with teachers have been explored in a limited way (Fisher, Waldrip & den Brok, 2005; Warden et al., 2003).

Following the assertions above, the purpose of this study was to propose a heuristic model that establishes primary students’ social and emotional skills, along with teacher-student relationships, as an organisational framework that can be examined in relation to students’ emotional and behavioural difficulties (Figure 1). This generates the question: which teacher-student interpersonal behaviours or students’ social and emotional skills relate to students’ emotional and behavioural difficulties? We hypothesized that teacher-student relationships and students’ social skills and emotional skills influence students’ emotional and behavioural difficulties. Based on prior research, we expected that students’ with lower scores on emotional and behavioural difficulties would report higher scores on teacher’ leadership and helping/friendly behaviour and appropriate social and emotional skills, than their peers with higher scores on emotional and behavioural difficulties. Compared with prior studies, we expected that the contribution of both teachers’ interpersonal behaviour and students’ social and emotional skills would provide a fuller understanding of the mechanisms entailed in the formation of students’ emotional and behavioural difficulties at classrooms.
FIGURE 1

Hypothesized model exploring the relationships between teacher-student relationships and social and emotional skills with emotional and behavioural difficulties

METHODOLOGICAL FRAMEWORK

Participants
A total of 962 participants, of which 470 (48.9%) were males and 492 (51.1%) were females, from 25 state elementary schools of central, south and northern Greece took part in the study. Of these, 401 (41.9%) students attended the fifth grade and 561 (58.1%) the sixth (final) grade of elementary school. The students were Caucasian, had Greek nationality and ranged from 11-12 years old.

Instruments
Questionnaire on Teacher Interaction (QTI).
Students’ perceptions about teacher-student relationships were estimated using the Questionnaire on Teacher Interaction (QTI). The QTI was originally developed in the Netherlands. Adapting the Leary’s (1957) model of interpersonal behaviour model to the context of education, Wubbels, Creton & Hooymayers (1987) devised the Model of Interpersonal Teacher Behaviour. This model has two central factors, namely ‘Influence’ (that is, who is controlling the communication, with teacher Dominance on the one end and teacher Submission on the other) and ‘Proximity’ (that is, how much cooperation there is between the people who are communicating, with teacher Opposition on the one end and teacher Cooperation on the other). The two dimensions are divided into eight dimensions of teachers’ behaviour: leadership, DC (e.g., S/he is a good leader), helping/friendly behaviour, CD (e.g., S/he is someone we can depend on), understanding
behaviour, CS (e.g., If we have something to say s/he will listen), giving students freedom, SC (e.g., S/he gives us a lot of free time in class), uncertain, SO (e.g., S/he seems uncertain), dissatisfied, OS (e.g., S/he is suspicious), admonishing, OD (e.g., S/he gets angry) and strict behaviour, DO (e.g., S/he is strict). These eight categories of behaviour are distributed on a circular frame with equal distances to each other, and equal distances to the centre of the circle. The preconditions above place the Model of Interpersonal Teacher Behaviour in the category of the ideal circumplex models (Figure 2).

**FIGURE 2**

The Model for Interpersonal Teacher Behaviour

The 64-item QTI American version was constructed in 1988 and has been translated into more than 15 languages. Cross-cultural studies empirically validated the QTI instrument (den Brok, Brekelmans, & Wubbels, 2004; Fisher, Waldrip & den Brok, 2005; Fraser & Walberg, 2005; Lapointe, Legault, & Batiste, 2005). Kyriakides (2005) developed the Greek version of the QTI based on the American version. The inventory consists of 63 items, which are answered on a 5-point Likert scale, ranging from 1 (never) to 5 (always). The examination of the reliability and validity of the Greek version of the QTI was investigated by subjecting the scale scores to a multilevel factor analysis (Kyriakides, 2005). In the current study, prior to the main analysis, the internal consistency of the eight QTI subscales was examined. Findings showed that alpha values ranged from .51 to .80 (Table 1). Information validity of the instrument is analytically described elsewhere (Poulou, in press).

The Matson Evaluation of Social Skills with Youngsters (MESSY). Students’ self-reports on the possession of social and emotional skills were examined with the Matson Evaluation of Social Skills with Youngsters (MESSY), developed by Matson, Macklin & Helsel (1983). In the present study, two subscales of the MESSY were used: ‘Appropriate Social Skills’, consisted of 23 items (e.g., I look at people when I talk to them) and ‘Inappropriate Assertiveness’, consisted of 16 items (e.g., I threaten people or act like a bully). Each item is
rated on a 5-point Likert-type scale ranging from 1 (not all corresponding) to 5 (corresponding perfectly). The self-report version of MESSY can be completed by children and teenagers aged 4-18 years of age. A number of studies empirically validated the MESSY instrument and extended its applicability as a method of assessing childhood problems (Chou, 1997; Matson, Macklin & Helsel, 1985; Teodoro et al., 2005). The English version of the MESSY scale has been translated into Greek by the author. Effort was made to ensure that the original meaning of each item was retained in the Greek translation. In order to examine its translation validity, linguistic parallelism was checked by independent back-translation. The reliability coefficients for appropriate social skills ($M= 3.97, SD= 0.57$), and inappropriate assertiveness subscales ($M= 1.83, SD= 0.68$) were .83 and .86 respectively (table 1).

The Strengths and Difficulties Questionnaire (SDQ).
The SDQ is a community-wide screening inventory used for the detection and treatment of child behavioural problems (Goodman, 1999). The self-report version of the SDQ can be completed by children and teenagers aged 11-16 years. The SDQ has been used in studies of different populations (Goodman, Renfrew, & Mullick, 2000). In the current study we administered four of the SDQ scales, with 5 items each, generating behaviour difficulties: ‘Hyperactivity Scale’ (e.g., I am restless, I cannot stay still for long), ‘Emotional Symptoms Scale’ (e.g., I am often unhappy, down-hearted or tearful), ‘Conduct problems Scale’ (e.g., I fight a lot. I can make other people do what I want), ‘Peer Problems Scale’ (e.g., I am usually on my own. I generally play alone or keep to myself). Each item can be marked as 0, “not true”, 1, “somewhat true”, or 2, “certainly true”. Higher scores indicate more difficulties. In the Greek version of the questionnaire, population validity information comes from the self-report version given to students (Mavroveli et al., 2008). In the current study, the internal consistency of the subscales are presented in table 1. Again, information validity of the instrument as well is presented elsewhere (Poulou, in press).

Procedure
A letter explaining the aims of the research was sent to head teachers of the participating schools. Having students’, parents’ and teachers’ consent, the administration of the instruments took place, by the researcher, following a pilot test to 10 students to ensure the comprehension of their items. Students were given oral information about the research aims and written instructions about the completion of the instruments. Testing took place exclusively in class, with no time constraints imposed. The participants and their parents were assured about the confidentiality and anonymity of the information they provided.

RESULTS

Students’ perceptions of teacher-student relationships, their social and emotional skills and emotional and behavioural difficulties
Preliminary analyses were conducted to investigate differences in all the variables. Table 1 shows the descriptive statistics and correlation matrix of QTI, MESSY and SDQ measures. The measures of teacher-student relationships and students’ social and emotional skills inter-correlated significantly with one another, as did the students’ emotional and behavioural difficulties measures. Further, teacher- student relationships and students’ social and emotional skills individually correlated with students’ emotional and behavioural difficulties, in a direction
that teacher’s uncertain, dissatisfied, admonishing and strict behaviour, and students’ inappropriate assertiveness were positively correlated with students’ emotional and behavioural difficulties. In contrast, teacher’s leadership, helping/friendly, understanding, student freedom behaviour, and students’ appropriate social skills were negatively correlated with students’ emotional and behavioural difficulties (all ps < .01).

**TABLE 1**

Correlation coefficients for the measures

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**p ≤0.05, *p ≤0.01

**Predicting students’ emotional and behavioural difficulties**

SEM (ML) analysis was run in AMOS between scales of MESSY, SDQ, and QTI. Regression imputation was run for completing missing values in the data set. It must be noted that variables with low reliabilities (less than .60) did not join Amos’ models. Therefore, dimensions such as “giving students freedom”, “strict” and “understanding” were not included in the model, since their loadings were not statistical significant and small (below .05). For space purpose we will present the final model (figure 3). The model had loadings above +/- .04. The model produced: $X^2(21) = 30.831$, $X^2 p > .05$, MLmean=23.745 (MLse=.169), B-Sp=.168, RMSEA=.022 (C.I. at 90% for the RMSEA were .000 to .038), RMR=.006, CFI=.998, CMIN/DF=1.468,. No modifications were suggested to that model. All the criterions showed that this model fitted the data adequately.

The results showed that students’ inappropriate assertiveness is influenced by teachers’ admonishing behaviour (.14), uncertain behaviour (.10) and dissatisfied behaviour (.13). In turn, inappropriate assertiveness influences emotional problems (.12), conduct problems (.32),
hyperactivity (.24), and peer problems (.09). Students’ appropriate social skills are influenced by teachers’ leadership behaviour (.17), helping/friendly behaviour (.10) and uncertain behaviour (negatively, -.05).

FIGURE 3

*Model the effects on students’ emotional and behavioural difficulties (leadership behaviour, helping/friendly behaviour, admonishing behaviour, uncertain behaviour, dissatisfied behaviour, ma=inappropriate assertiveness, ms=appropriate social skills, emotional problems, conduct problems, hyperactivity, peer problems)*

Students’ appropriate social skills further influence hyperactivity (negatively, -.11), and peer problems (negatively, -.18). It must be noted that teachers’ dissatisfied behaviour influences students’ emotional, conduct problems, hyperactivity, and peer problems (from .06 to .11). Finally, students’ emotional problems are influenced by teachers’ leadership behaviour (negatively, -.05). Table 2 more analytically presents the standardized effects of the model variables. It has to be noted that the effect size of conduct problems to inappropriate assertiveness was large, while most of the rest effect sizes were from small to medium. Also, the total effect of conduct problems to teacher’s dissatisfied behaviour was .296 (medium effect size).
TABLE 2

Standardized effects (Direct, Indirect, Total)

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<th>leadership</th>
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<tr>
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<td>-0.053</td>
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<td>0</td>
<td>0</td>
<td>-0.243</td>
<td>0.147</td>
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</tr>
<tr>
<td>Indirect</td>
<td>0</td>
<td>0</td>
<td>0.188</td>
<td>0</td>
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<td>-0.243</td>
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<tr>
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<td>0.061</td>
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DISCUSSION

If we need to investigate and predict students’ cognitions, affect and behaviour, we have to attend to how they perceive and give meaning to classroom experiences. Based on the sociocognitive premises that highlight the role of students’ perceptions (Fraser & Walberg, 2005), we propose that in order to examine the influential factors of students’ emotional and behavioural difficulties, we mainly need to study students’ perceptions.

This study extends prior research by investigating the contribution of individual students’ skills and teacher-student relationships. It was found that teachers’ behavioural dimensions such as admonishing, uncertain and dissatisfied behaviour relate to students’ inappropriate assertiveness, teachers’ behavioural dimensions such as leadership and helping/friendly behavior relate to students’ possession of appropriate social skills, while teachers’ uncertain behaviour relates to students’ possession of appropriate social skills in a negative direction. These findings are in line with a number of studies on teacher-student relationships (den Brok, Brekelmans & Wubbels, 2004; Goh & Fraser, 1998; Marshburn et al., 2008; Birch & Ladd, 1998; Howes & Hamilton, 1993; Loukas et al., 2009). Students demonstrate emotional and behavioural difficulties when teacher-student relationships are characterized by teachers’ dissatisfied behaviour, and when they lack appropriate social skills or in other words exhibit inappropriate assertiveness. Students’ possession of social skills appeared to have a prominent role in the manifestation of emotional and behavioural difficulties, while teacher-students’ relationships have also an indirect effect to students’ behaviour, through the association with students’ social and emotional skills. Present study, in agreement with much past research, replicated the
advantages of positive teacher-student relationships in preventing discipline problems (Fraser & Walberg, 2005). The most robust finding in our study however, was that the possession of students’ social and emotional skills is considered crucial by students, for their psychological adjustment at schools, in support to SEL axioms. This latter finding suggests that teachers need to equip students with social competencies and skills that help them to deal effectively with life situations.

In theoretical terms, this holistic approach contributes to unpacking the potential predictors or underlying mechanisms of students’ behaviour. This framework extends the theoretical rationale which systems communication perspective has on academic achievement, to the area of emotional and behavioural difficulties. At the same time, this theoretical process broadens its focus to include the research evidence provided by the SEL approach (Poulou, 2014).

In practical terms, we move towards defining those within teacher, or child characteristics that are manipulable by teachers and can accordingly be modified to achieve desired goals. This is an optimistic view. These data can be used to inform teachers and professional staff to identify behaviours, and conditions that warrant intervention and provide additional training and support to classroom teachers, as needed. In accordance to Chory-Assad & Paulsel (2004) suggestions, we underscore the importance of teacher training in classroom management strategies, as certain communication tactics may prove destructive to the student-teacher relationships and the classroom atmosphere.

In suggesting such a theoretical framework however, we recognize limitations. First, we cannot assume causal relationships or mediating effects among the potential predictors of emotional and behavioural difficulties. Second, the results were uniquely based on students’ perceptions. While valuable, students’ perceptions do not provide information about the actual behaviours or intentions of the teachers, or students’ attitudes with regard to their teacher. Future research could include qualitative information, such as interview or observation data with students of different ages or cultural backgrounds, and students’ behaviours other than those considered in the present study, to further elaborate these findings. Although there is support that aggregated judgments of teachers’ behaviour are more valid than individual judgments (den Brok et al., 2006), future work could investigate students’ personal opinions compared to the perceptions of the class, in an attempt to interpret students’ emotional and behavioural difficulties. Nevertheless, it is actually the case that self-perceptions have a strong influence on behaviour, irrespective of their accuracy (Bandura, 1997), and that students’ perceptions are an important aspect of their psychological adjustment. Future research could contribute to a better understanding of the interplay among various dimensions of classroom environment. This current paper consists of an attempt to conceptualize an interpretation framework of students’ emotional and behavioural difficulties, by taking into consideration teacher and student parameters, as a few of the multiple classroom ecological influences.

REFERENCES


