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Social, emotional and behaviour difficulties in Maltese schools

Carmel Cefai^{1a}, Paul Cooper^b and Liberato Camilleri^a^aUniversity of Malta ^bUniversity of Leicester, UK

This paper reports the first national study of social, emotional and behaviour difficulties (SEBD) in Maltese schools. The study secured a sample of ten percent of the school population in state and non-state primary and secondary schools in Malta and Gozo, with 7000 students and their respective class teachers and parents selected to participate in the study. The study sought to explore the nature and distribution of SEBD in Maltese schools; to examine the relationships between SEBD and socio-cultural factors as reflected in the school, family and community contexts, and identify the risk and protective factors for SEBD. This paper presents the key findings of the study, and makes various recommendations in the prevention and management of SEBD and the promotion of socio-emotional literacy in schools. A key message is the complexity and multi-factorial nature of this phenomenon, and the need for multilevel, multisystemic interventions.

Keywords: SEBD Malta prevalence risk factors socio-cultural factors

Introduction

Behaviour difficulties in schools, such as defiant and oppositional behaviour, violence, anti social behaviour and bullying, have become an increasing cause for concern in many countries. The increase in the frequency of these difficulties is reflected in epidemiological studies (Rutter and Smith 1995) and in the international literature on behaviour problems and exclusion from schools (Mooij 1999; Parsons 1999; Cooper *et al.* 2000). Currently, taking the widest definition of social, emotional and behavioral difficulties (SEBD), it is estimated that between ten to twenty percent of school aged children experience significant problems of these kinds at any time (Young Minds 1999; BMA 2006).

A number of seriously disruptive behaviour incidents in schools have been reported in the Maltese press in recent years, putting this issue at the top of the agenda of the local educational

¹ Corresponding author. Email: carmel.cefai@um.edu.mt

authorities, school staff and teachers' union (Cefai and Cooper 2006; Office of the Commissioner for Children 2006; Sciberras 2006; MUT 2007). As a result, an intense debate has developed in recent years about the nature and causes of such difficulties and the most effective ways for responding to them. Informed research-based discourse in the international literature has moved away from the erstwhile simplistic mono-causal explanations for SEBD in school, underlining the complexity and multi-factorial nature of the phenomenon (Cooper 2004, 2005).

The public debate, however, in response to sometimes sensationalist media coverage which emphasizes and often exaggerates the prevalence of violent behaviour in schools, continues to be mired in outdated and sterile arguments which seek to apportion blame, or to pose simplistic and ill-informed nature versus nurture explanations. Furthermore, whilst, internationally, there is virtually universal public support for the idea that students with Individual Educational Needs should be dealt with in a sympathetic and supportive manner by which educational services are adapted to their needs and attributes, students with SEBD are often the subject of public debates which pit punitive against therapeutic approaches.. This leads in some cases to the unedifying spectacle of the officially sanctioned marginalization of students with SEBD, through formal and informal exclusionary practices, being seen alongside a rhetoric which asserts the need for more preventative measures such as staff education, parental training and support, curricular review and restructuring of the educational system. Indeed, students with SEBD are usually the least liked and understood students (Baker 2005; Kalambouka et al. 2007), the only group for whom punitive, exclusionary responses are still permitted by law (Cooper 2001), They are the students most likely to end up as school failures and leave school prematurely (Farrell, Critchley and Mills 2000; Groom and Rose 2004) and to be at risk of social exclusion and mental health difficulties in childhood and later life (Maes and Lievens 2003; Fergusson, Horwood and Ridder 2005; Colman et al. 2009).

In the Maltese context, the lack of local scientific data constituted a barrier to developing effective responses to SEBD. For instance, the absence of epidemiological data on the distribution and nature of these difficulties in Maltese schools made it difficult for the educational authorities to draw an effective plan of action based on local needs. While some existing data on very challenging behaviour amongst school age children suggested significantly lower rates when compared to international figures (e.g. Pisani *et al.* 2006; Sciberras 2006), it was evident that the data sets on which these figures were based were not representative of the general population of school students in Malta. In view of this situation, a three-year national study of social, emotional and behaviour difficulties in Maltese schools

started in 2005. Its objectives were: to examine the nature and distribution of students with SEBD in primary and secondary schools in Malta; to explore the relationships between the nature and distribution of SEBD and socio-cultural factors as reflected in the school context and family/community factors; and to identify the associated protective and risk factors for SEBD. This was a large scale study and in this paper we can only provide an overview of the more salient findings of the study. A more detailed account of the study can be found in a lengthy report produced by the authors and on which this paper is based (Cefai, Cooper and Camilleri 2008).

Background

Education in Malta is compulsory between the ages of 5 and 16, with 6 years of primary education followed by five years of secondary school. Kindergarten (nursery) is provided for three and four year olds. State schools cater for about two thirds of the Maltese school population, while the other third go to Church and Independent schools. At the end of the primary cycle, pupils sit for the Junior Lyceum examination (11+) which streams children according to ability in two different types of secondary education, namely Junior Lyceum for those who pass the 11+ (presently the pass rate is 60%), and Area Secondary Schools for those who fail or do not sit for the examination. Vocational schools which used to take students after the third year of secondary education, mostly from the Area Secondaries, have been closed down, and students wishing to follow a vocationally oriented education may do so at the newly established *Malta College of Science and Technology*, once they complete the secondary school cycle. A recent development has been the clustering of all state schools in the country into ten regional colleges, with all primary school pupils in a particular college going to one secondary school for boys and another for girls within that college (while primary schools are mixed, there is still single sex secondary education in state schools). This will gradually do away with the Junior Lyceum/Area Secondary divide. A reform process has just been introduced with the aim of the gradual phasing out of the 11+.

The Maltese educational system, originally based on the British system, has been making significant changes in the past decades to adapt to the needs of a small island EU state in the twenty first century. The new *National Minimum Curriculum* (Ministry of Education, 1999), a landmark development in local educational history, has provided guidelines for the provision of a quality, holistic, democratic and inclusive education for all students. Recently the Education Directorates have launched a series of reforms to review the curriculum and restructure the systems of assessment, selection, and

streaming, in an effort to bring educational practice more in line with the principles outlined in the National Minimum Curriculum.

In line with the principles of inclusive education and respect for diversity enshrined in the National Minimum Curriculum and the Inclusive Education Policy (eg. Bartolo et al. 2002), children and young persons with individual educational needs in Malta are entitled to the provision of adequate support in their learning in their own schools. The great majority of students with individual educational needs attend mainstream schools, with only a couple of hundred students still attending special schools. Students with SEBD are thus supported in mainstream schools, with only 0.2% of such students in special settings (Cefai and Cooper, 2006). These students are usually but not always provided with individual support by learning support assistants depending on the severity of their difficulties. A number of support services are also available for such students, including the School Psychological Service, the Educational Social Work Services and the Guidance and Counselling Services amongst others. Various pilot projects have been introduced in a number of colleges in the last couple of years to support the education of students with SEBD. These include Emotional Literacy Classes (Circle Time) and Nurture Groups in primary schools, and Learning Support Units and Behaviour Support Teams in secondary schools. These initiatives are intended to provide school based specialist support for students and teachers in line with the inclusive education policy in place in the country, and are being facilitated by a cohort of teachers who have just completed a masters training programme in the education of students with SEBD at the University of Malta. The remaining five small special schools/units for students with SEBD, which take a small number of students (mainly boys) with very challenging behaviour, are presently being reviewed in line with the current restructuring of specialist provision.

Methodology

The sample constituted ten per cent of the entire school population in the country, making it a very important study not only for the local educational context but for the international field as well, having one of the largest and most representative data sets in international research since the Isle of Wight Study in the 1960s (Rutter 1971). A random sample of approximately 7000 students was stratified mainly by school type, region and level, with comparable number of male and female students for each age group. In a multistage sampling procedure, 69 primary schools and 44 secondary schools were selected, providing a proportional representation of the school population by school type and region. Cluster sampling was used to choose classes within the selected schools; however, for small schools all

the classes were included. Random sampling was then used to choose students within the selected classes. The sample consisted of 3489 male and 3440 female students; of which 3380 attended primary schools and the remaining 3549 attended secondary schools. The parents, teachers and Heads of school of the selected students were also asked to participate in the study by providing essential information about the student, classroom, school and home backgrounds.

A Maltese revised version of the Strengths and Difficulties Questionnaire (SDQ) (Goodman 1997), developed by the authors in consultation with Robert Goodman specifically for the current study, was used as a measure of the students' levels of social, emotional and behaviour difficulties. The SDQ is a brief screening questionnaire, developed by Robert Goodman, which has been used by many researchers as a screening tool to measure social, emotional and behaviour difficulties and identify the prevalence of mental health difficulties among children and young people. It comprises four difficulty subscales, each consisting of five items, measuring emotional symptoms, hyperactivity, conduct problems and peer difficulties respectively. Emotional difficulties relate to anxiety and depression; hyperactivity to restlessness, over-activity and inattention; conduct problems to anti social behaviours such as fighting, cheating and lying; and peer problems to bullying, loneliness, and having problems in relating with peers. The SDQ also includes a fifth subscale measuring pro-social behaviour, such as being considerate, helpful, caring and kind to others. In addition, the instrument contains an 'impact supplement' which enables the reportee to indicate the perceived level of 'burden' associated with the norm referenced difficulties score.

The parent, teacher, and student (for children 11+ years of age) SDQ versions were used in the study. The Maltese versions were developed through a process of forward and backward translations and then piloted with a number of teachers, parents and students. A content validity of the Maltese version, gave Cronbach's Alpha coefficients ranging from 0.713 to 0.893 on the five subscales for the teacher, parent and self report scales, suggesting a satisfactory level of content validity. Reliability was assessed using the split half method; a reliability value of 0.799 was obtained, indicating that the Maltese questionnaires provided results sufficiently internally consistent to indicate an acceptable level of reliability. Moreover, the reliability of the Maltese version was measured item by item using Cronbach's Alpha, with results ranging from 0.657 to 0.920. A test-retest measure, based on the teacher version, compared the teacher responses on a random sample of over 700 students selected from the whole study sample, with their (teacher) original responses over an extended period of time, obtained positive and significant correlations greater than 0.7 and significant.

Another objective of the study was to explore the relationship between SEBD and a number of individual, classroom, school and home variables. A set of supplementary questionnaires were constructed to collect essential information about these variables. These had to be completed by teachers, parents and heads of school respectively. The list of variables included the following:

- Individual variables (age, gender, mother language, home region, attainment, attendance, ethnicity, religion, communication, formal assessment, diagnosis, type of support received).
- Classroom and teacher variables (classroom size and space, streaming, teacher experience and qualifications).
- School variables (type of school, region, size, space, staff complement).
- Home variables (parental education and occupation, family size and structure, income, house space and ownership).

From the 6929 questionnaires posted to the parents, 3163 (45.6%) completed questionnaires were returned, and 2827 students who were given consent by their parents (89.4%) to participate, completed the questionnaires. A total of 5200 (75.0%) of the questionnaires were returned by the teachers, while 93 out of 113 Heads of school completed their respective questionnaires. Hypothesis testing was carried out via the One-way ANOVA and Chi-Square tests; for both tests a 0.05 level of significance was employed. Generalized Linear Regression models were used to identify the significant predictors of SEBD by analyzing the variables collectively as main effects.

Findings

Prevalence

According to teachers, 9.7% of school children have social, emotional and behaviour difficulties. This is very close to the 10% proportion established by Goodman and his colleagues in the UK (Goodman 1997; Meltzer *et al.* 2000). Figure 1 displays the prevalence rate by gender and school level. There are more difficulties in secondary (10.27%) than primary schools (9.05%), with a ratio of 7: 6, and more difficulties amongst boys (10.46%) than girls (8.86%), in both primary and secondary school, the ratio being 7:6. In primary school, the male-female ratio is 8:7 and in secondary school, it is 6:5. SEBD are thus more likely to be found in boys' secondary school and the least in girls' primary schools.

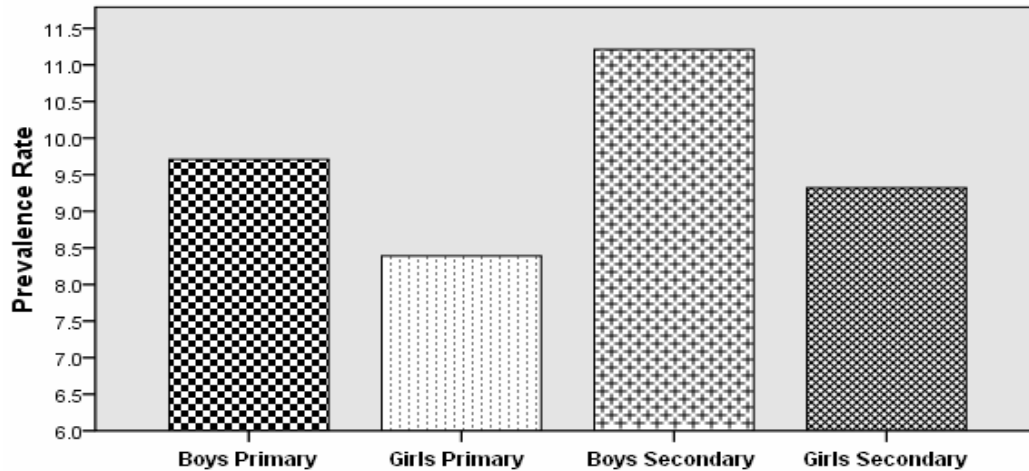


Figure 1 Prevalence of SEBD in Maltese schools by gender and school level

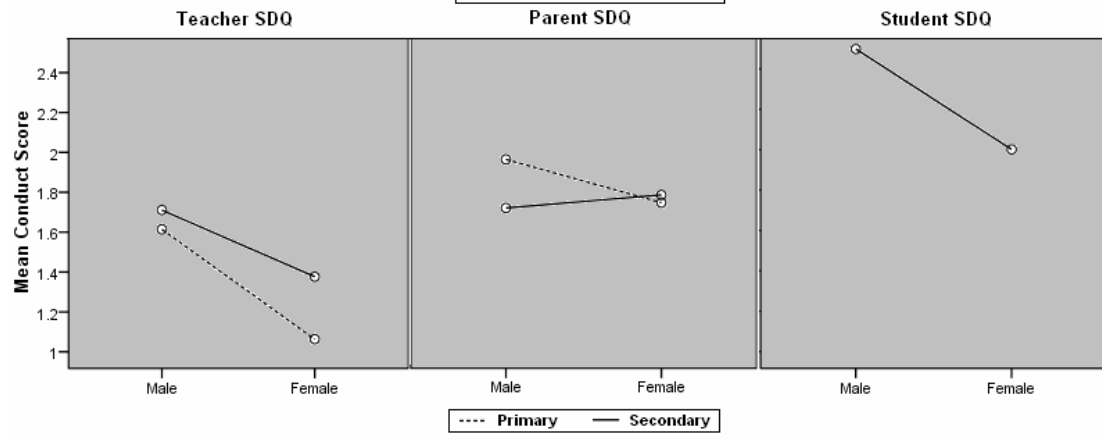
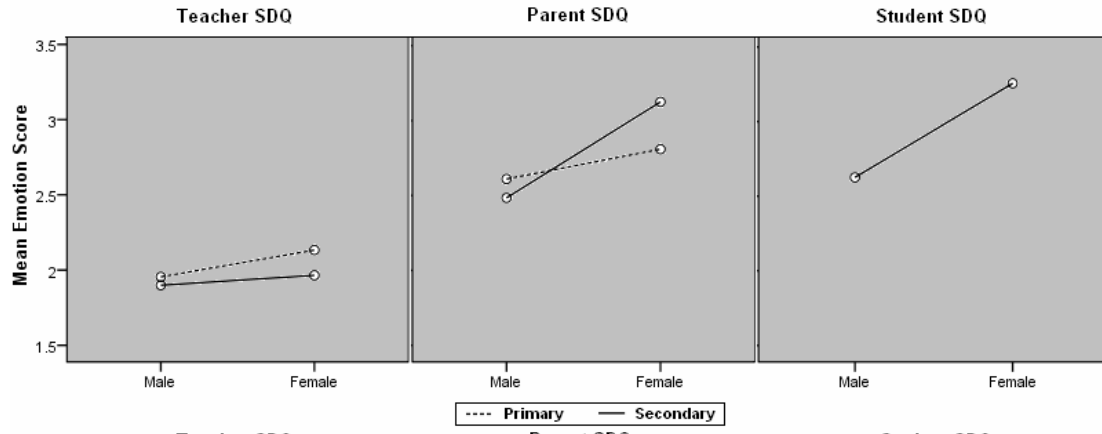
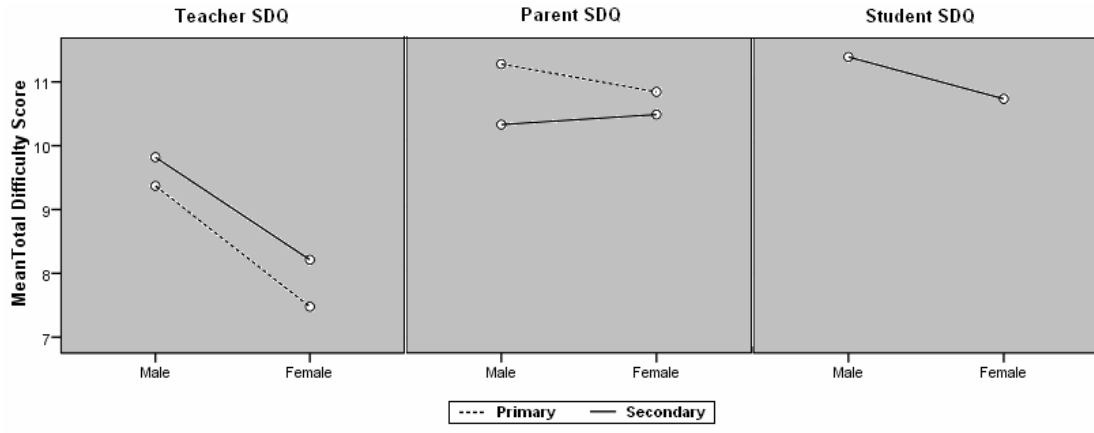
Frequency distributions of SEBD scores

Table 1 presents the means and standard deviations of the total difficulty scores and the four symptom scores for primary and secondary school students using parent, teacher and self-report SDQs. The teachers provide the lowest mean total difficulty scores, followed by parents and students respectively; this pattern is similar in most of the other subscales. The mean total difficulty score for secondary students using self-report SDQs is 11.00, suggesting that the students perceive they have more social, emotional and behaviour difficulties than their teachers and parents suggested. A look at the total difficulty scores suggests that teachers see more difficulties in secondary rather primary level, whereas parents see more difficulties in primary than secondary level. According to teacher, parent and self report evaluations, the highest mean scores amongst the four subscales are in hyperactivity, followed by emotional, peer and conduct difficulties respectively. Teachers perceive more emotional difficulties in primary school, and more conduct, hyperactivity and peer problems in secondary school. Parents on the other hand, indicate more emotional and peer difficulties in secondary school, and more conduct and hyperactivity problems in primary school.

Table 1: Teacher, parent and self report mean SDQ scores by school level

		Teacher SDQ		Parent SDQ		Student SDQ	
		5-10 years	11-16 years	5-10 years	11-16 years	5-10 years	11-16 years
Total Difficulty	Mean	8.39	9.06	10.93	10.32	N/A	11.00
	St.Dev	6.151	6.452	5.726	5.512		4.839
Emotion	Mean	2.04	1.93	2.72	2.82	N/A	2.95
	St.Dev	2.176	2.130	2.261	2.311		2.074
Conduct	Mean	1.33	1.55	1.83	1.74	N/A	2.24
	St.Dev	1.894	2.110	1.662	1.565		1.663
Hyperactivity	Mean	3.35	3.51	4.48	3.80	N/A	3.61
	St.Dev	2.944	2.983	2.624	2.458		2.078
Peer	Mean	1.67	2.08	1.91	1.96	N/A	2.20
	St.Dev	1.775	1.830	1.752	1.720		1.605

Male students have higher mean scores than females on total difficulty and on conduct and hyperactivity scores in both primary and secondary school (Figure 2). The largest difference is observed amongst teacher responses, followed by students; whereas parents discriminate less between the gender groups. Female students have higher mean scores on the emotional scale when compared to the male students, in both primary and secondary school. In peer relationships, males have higher mean scores than females according to teachers and students, but parent evaluations show no gender bias. Teachers and parents agree that emotional problems decrease slightly for male students as they progress from primary to secondary school but, while teachers perceive a similar pattern for females, parents suggest the opposite trend. According to teachers, conduct problems deteriorate for both gender groups in secondary school, but parents' responses suggest that conduct problems decrease for male students but remain fairly stable for female students as they move from primary to secondary school. According to parent responses, hyperactivity decreases considerably for both genders as they progress from primary to secondary school; however, teachers claim that students' hyperactivity remains fairly stable. Finally, teacher responses indicate that peer difficulties are more conspicuous in secondary school; parents on the other hand, hardly discriminate between male and female peer difficulties both in primary and secondary schools.



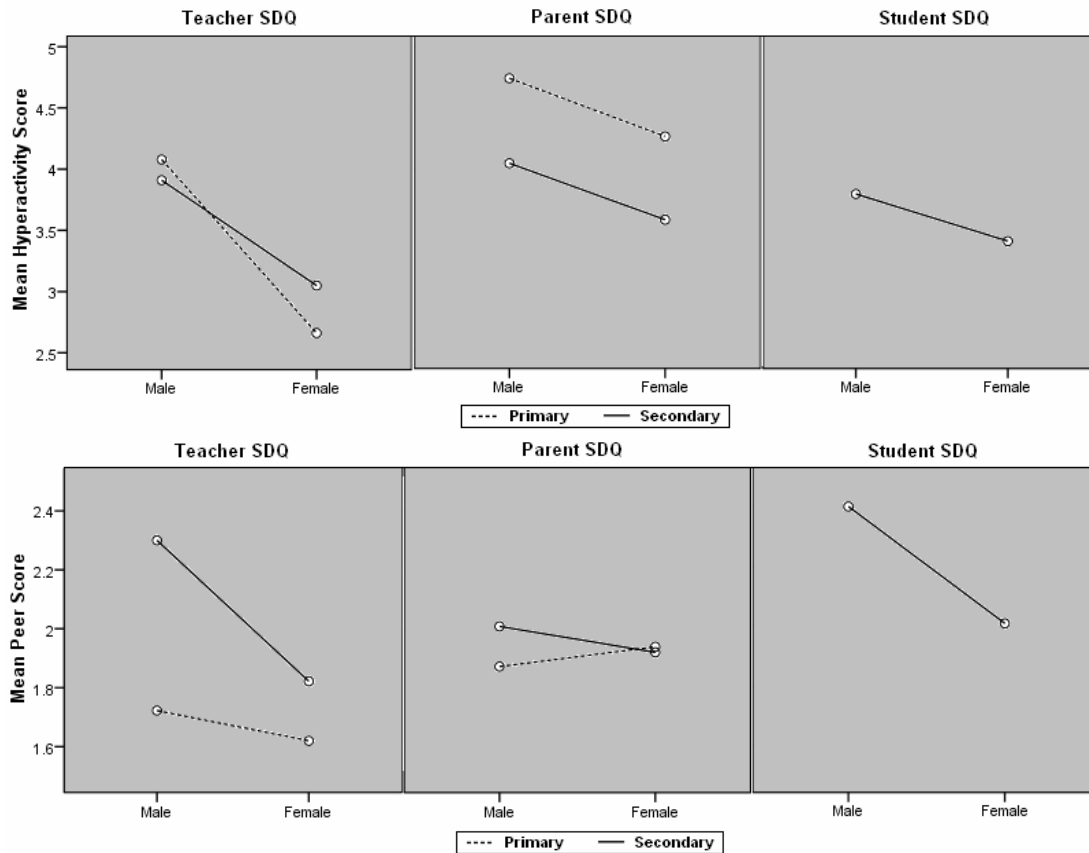


Figure 2: Mean scores for total difficulty score and subscales scores by gender and school level

Risk Factors

Individual variables:

Tables 2-9 (Appendix) provide descriptive statistics for the total difficulty scores by individual, class, school and home variables for primary and secondary school students respectively. This section will examine some of the more salient features of the findings. Gender and age have already been discussed in the previous section, so they will not be repeated here. There is little evidence that mother language, ethnicity and religion play a key role in the development of SEBD in Maltese schools, though teachers indicate that non-Maltese, non-Catholic secondary school students may exhibit more difficulties. This finding needs to be considered in view of the largely linguistic, ethnic, cultural and religious homogeneity of the country. There is no consistent pattern between students' home region and the distribution of SEBD.

Attendance, attainment, communication and assessment of individual educational needs, are some of the strongest individual factors related to the SEBD. The data strongly suggests that primary

and secondary school students with poor attendance, poor attainment, poor communication skills, and receiving support without a Statement of Educational Needs, are more likely to have SEBD than students without these characteristics (see Figures 3-6). School children who have been diagnosed as having some condition or disability and who are receiving some form of intervention for psychological and learning problems, also have more difficulties.

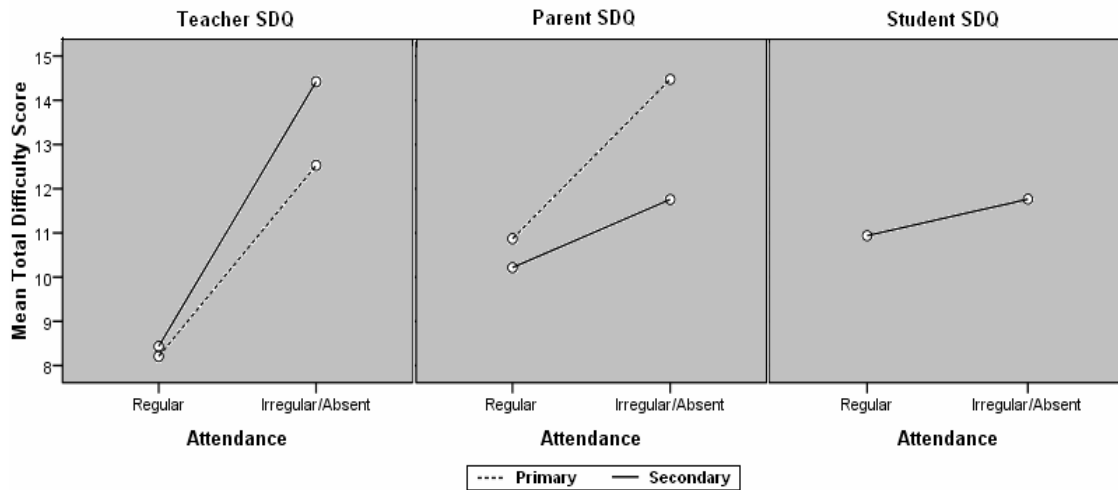


Figure 3: Mean total difficulty scores by attendance and school level

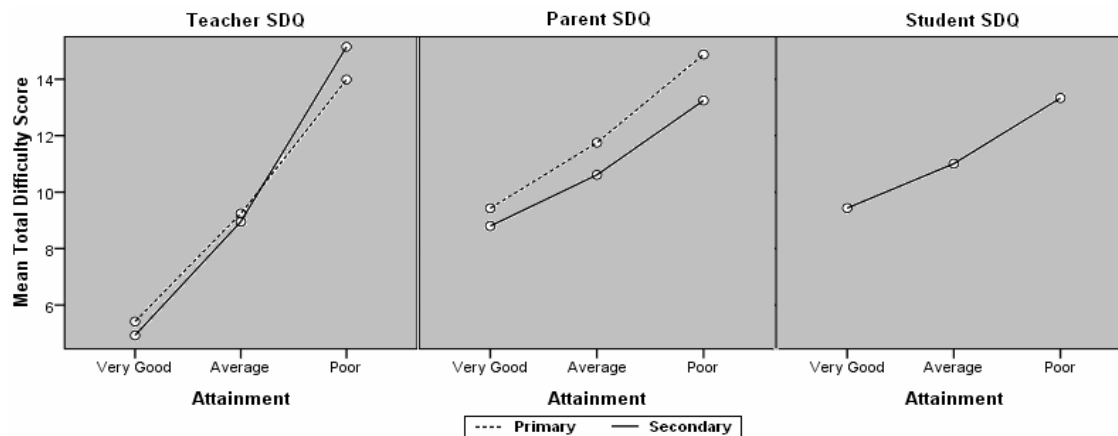


Figure 4: Mean total difficulty scores by attainment and school level

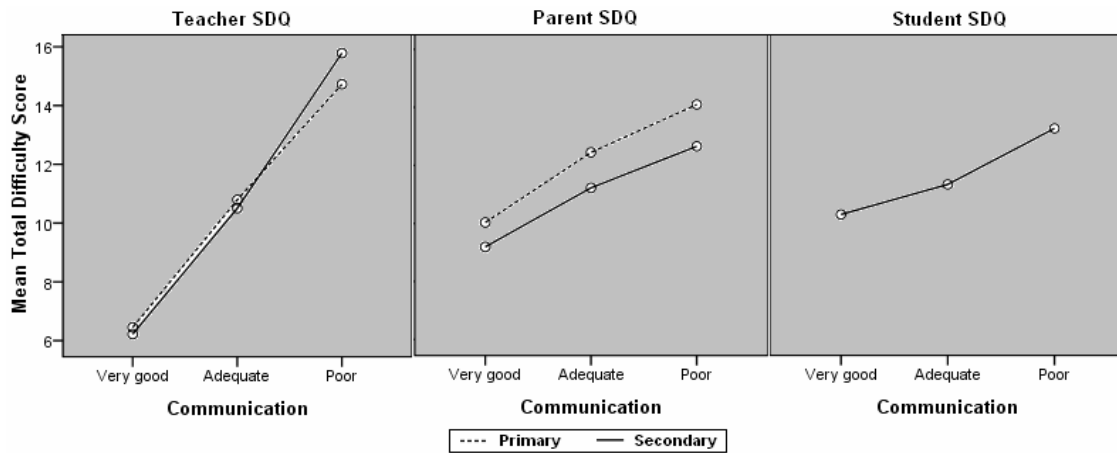


Figure 5: Mean total difficulty scores by communication and school level

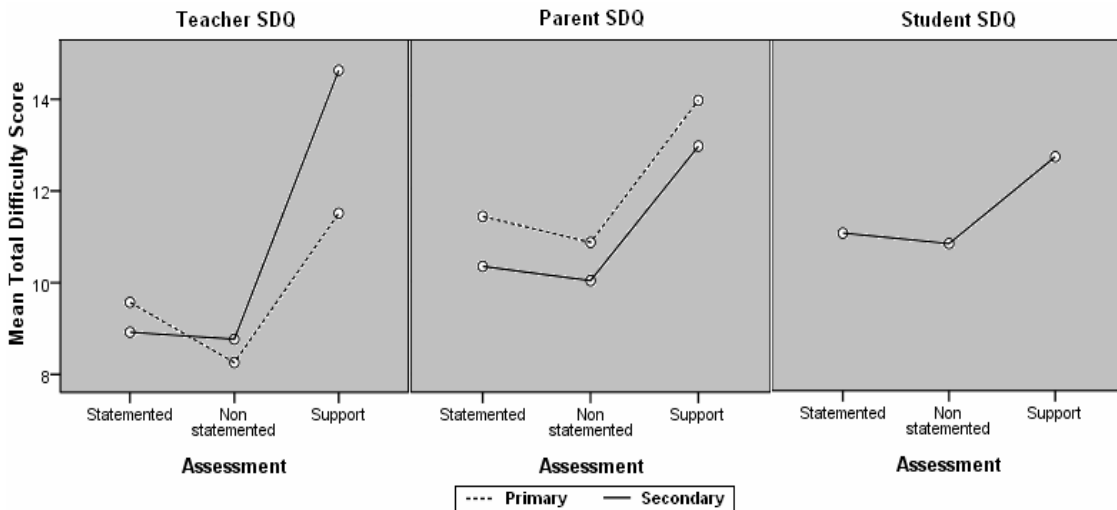


Figure 6: Mean total difficulty scores by assessment and school level

Classroom variables

Smaller classrooms have more social, emotional and behaviour difficulties, but this unexpected finding may be related more to these being lower streamed classrooms rather than to classroom size (Figure 7). Streamed classrooms have more difficulties than mixed ability or set classrooms, and there are more students with SEBD in the lower streamed classrooms (Figure 8). Secondary school classrooms with average or limited space have more difficulties than the more spacious ones (Figure 9). Teachers with less than five years teaching experience may face more difficulties in their classroom, but

this may be related to other factors, such as newly qualified teachers being assigned the more difficult classes, than to teaching experience. More significantly related is teacher qualification, with the least qualified teachers having more students with SEBD in their classroom; again this is partly explained by such teachers being placed in schools such as Area Secondary schools where there are more students with learning and behaviour difficulties (Figures 10-11).

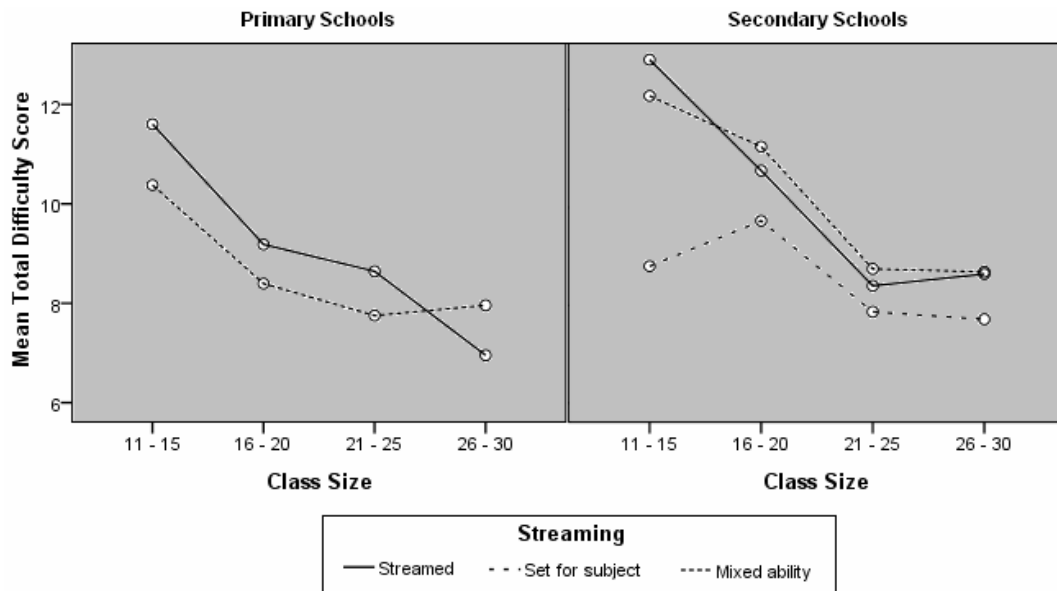


Figure 7: Mean total difficulty scores (teacher) by class size, stream and school level

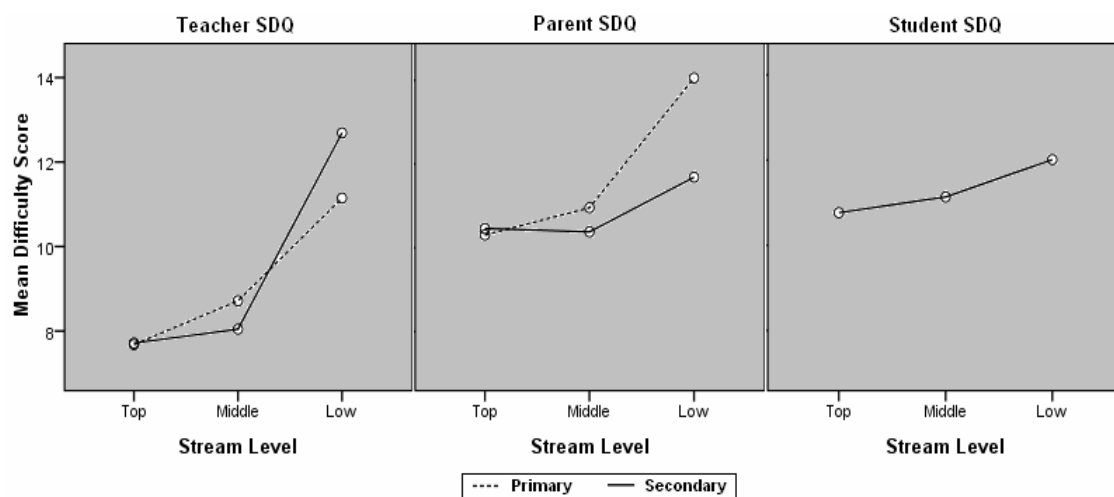


Figure 8: Mean total difficulty scores by stream level and school level

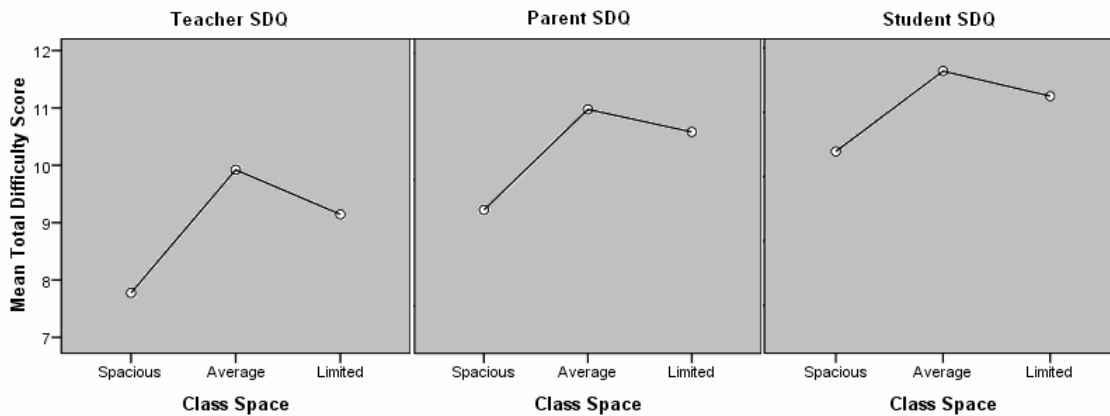


Figure 9: Mean total difficulty scores by class space in secondary schools

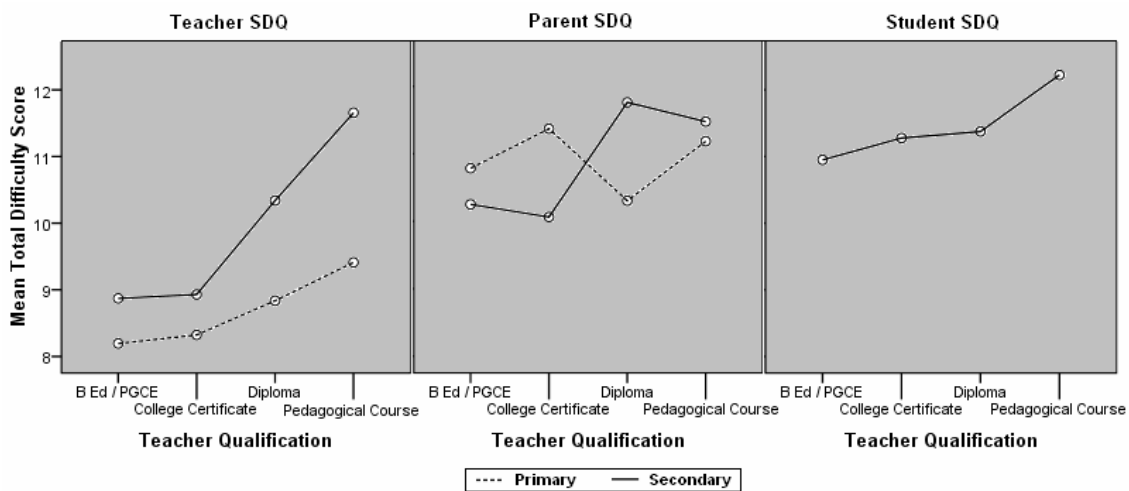


Figure 10: Mean total difficulty scores by teacher qualification and school level

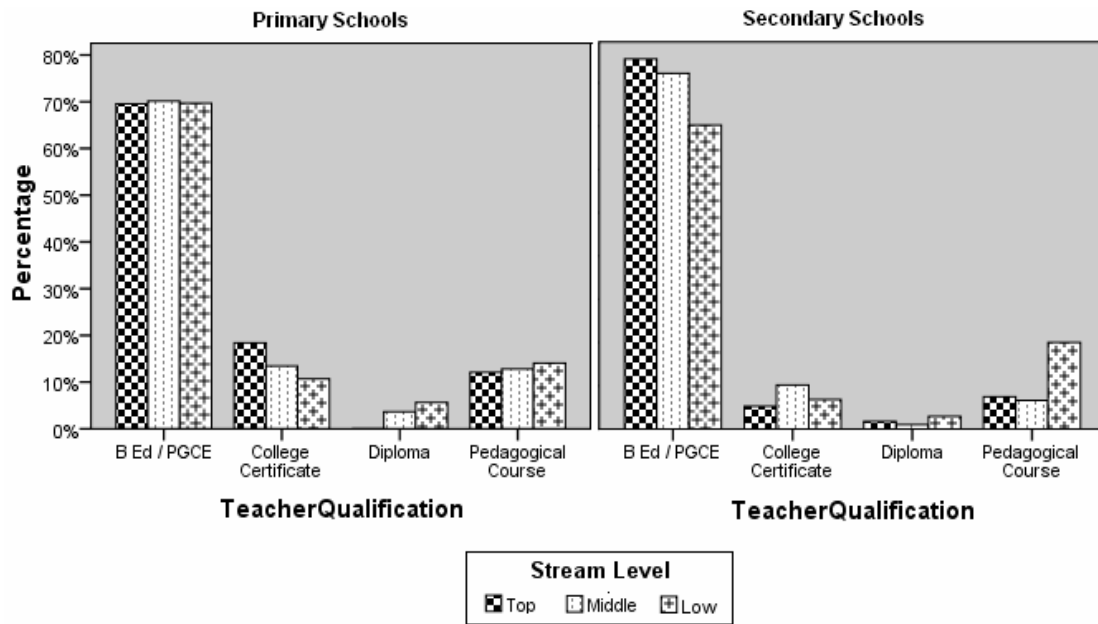


Figure 11: Percentage of students by stream level and teacher qualification

School variables

One of the most clear cut findings is that there are more problems in state schools than in church and independent schools, at both primary and secondary levels (Figure 12). Area Secondary schools have the highest level of difficulties at the secondary level, while the schools with the least difficulties are independent primary schools and church secondary schools. A rather surprising finding is that primary schools with less than 300 and more than 700 students, and secondary schools with less than 500 students, have more difficulties. However, school size is partly explained by school type, with the smaller schools being state primary schools and Area Secondary schools. Schools with unattractive environments or whose environment needs improvement, are more likely to have higher levels of difficulties (Figure 13). Higher levels of SEBD were also found in secondary schools with limited space and limited play space

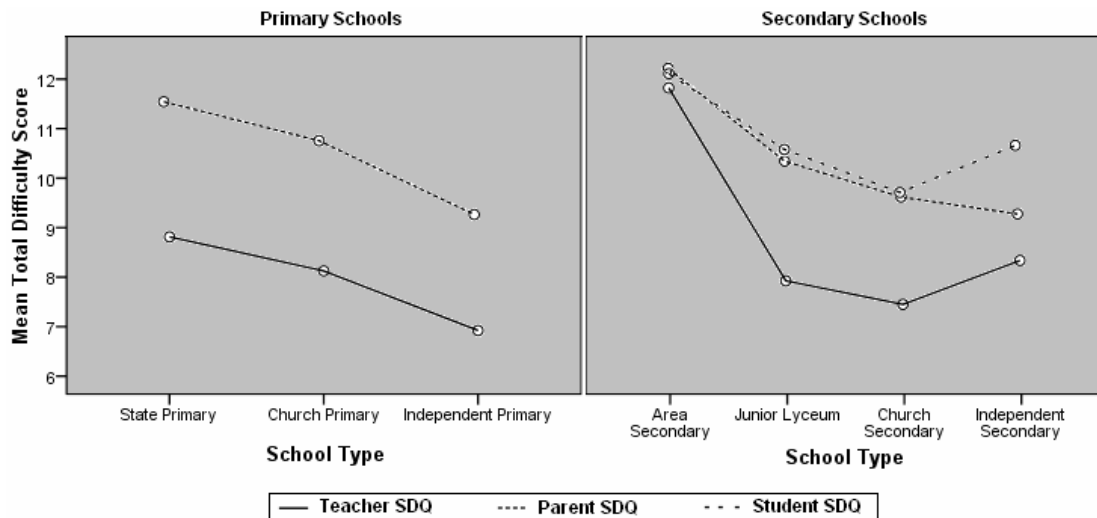


Figure 12: Mean total difficulty scores (teacher) by school type and school level

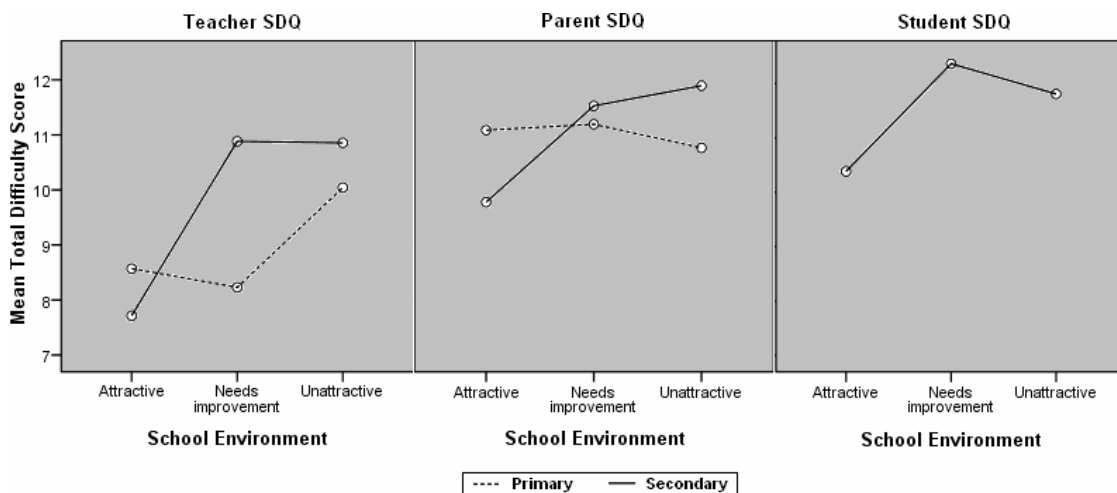


Figure 13: Mean total difficulty scores by school environment and school level

Home variables

The two salient home variables related to SEBD are family structure and socio-economic status. One parent families have more children and young persons with SEBD than two parent families, particularly single parent families (Figure 14). SES is one of the strongest and most consistent home variables related to SEBD. The lower the family’s SES, the more likelihood of children and young persons with difficulties in the family. Families where one or both parents have semi-skilled or unskilled jobs and have low level of education are more at risk of having children exhibiting SEBD (Figures 15-16). High levels of SEBD also prevail in families where the father is unemployed or has a low income (Figure 17).

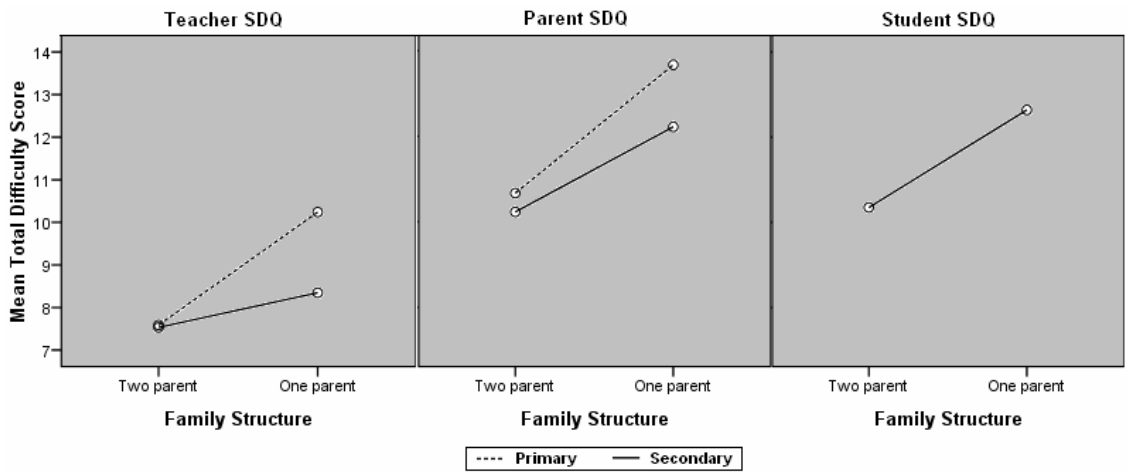


Figure 14: Mean total difficulty scores by family structure and school level

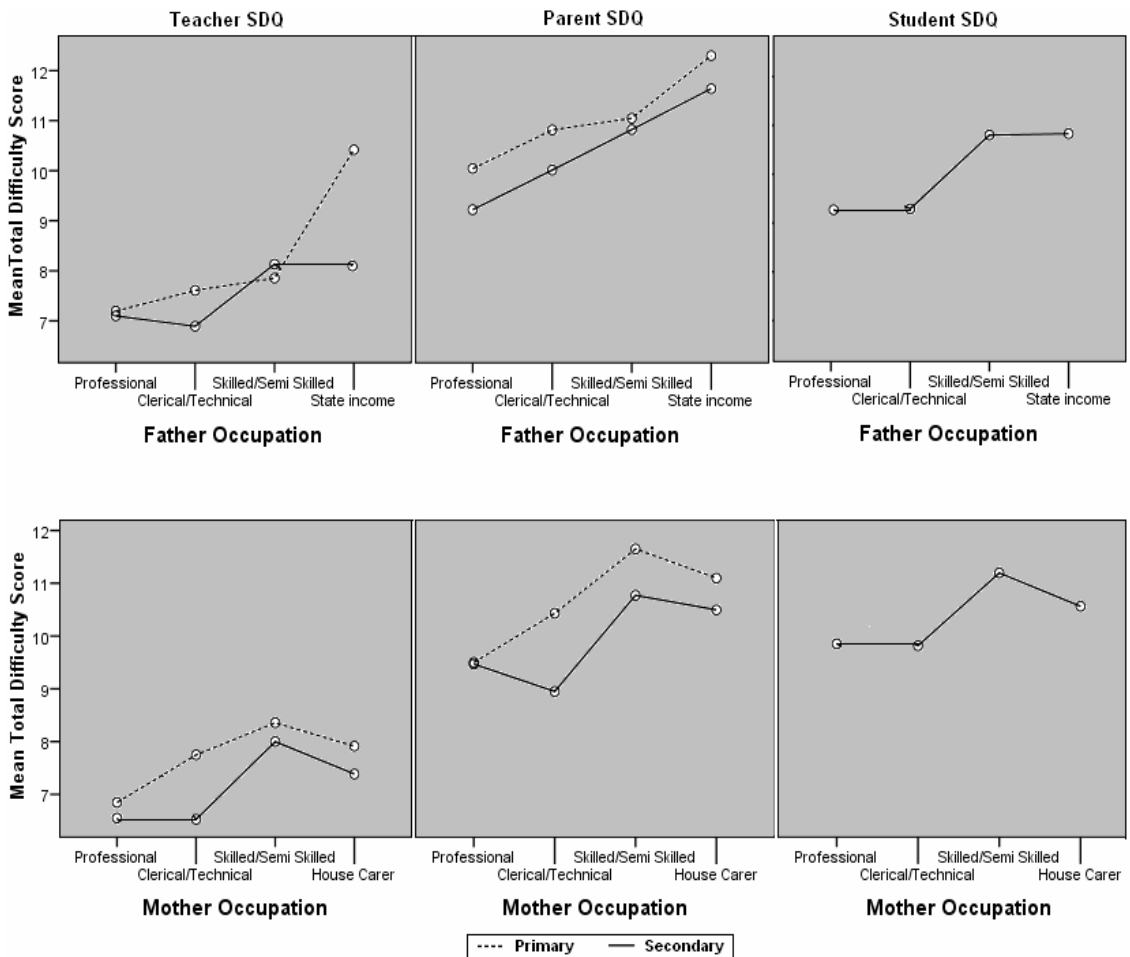


Figure 15: Mean total difficulty scores by mother and father occupation and school level

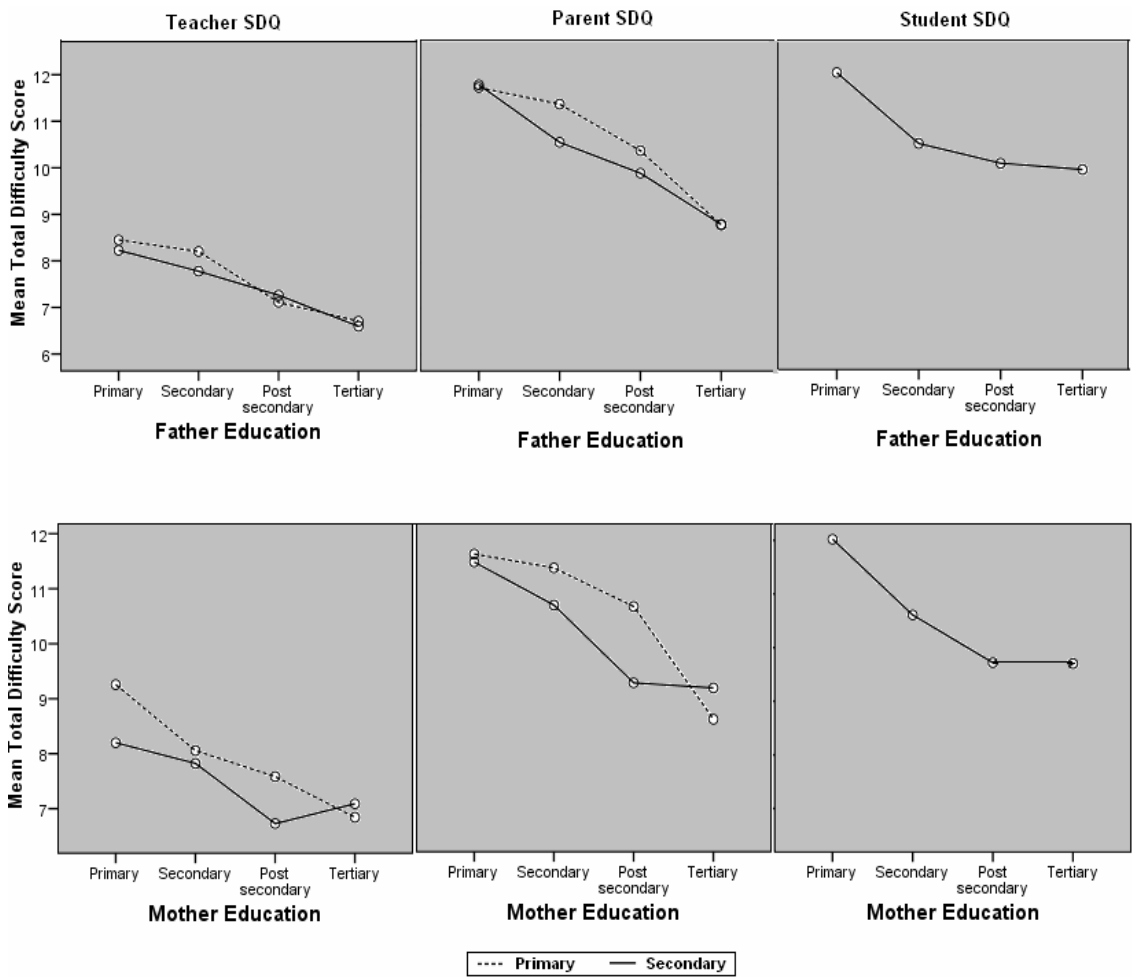


Figure 16: Mean total difficulty scores by mother and father education and school level

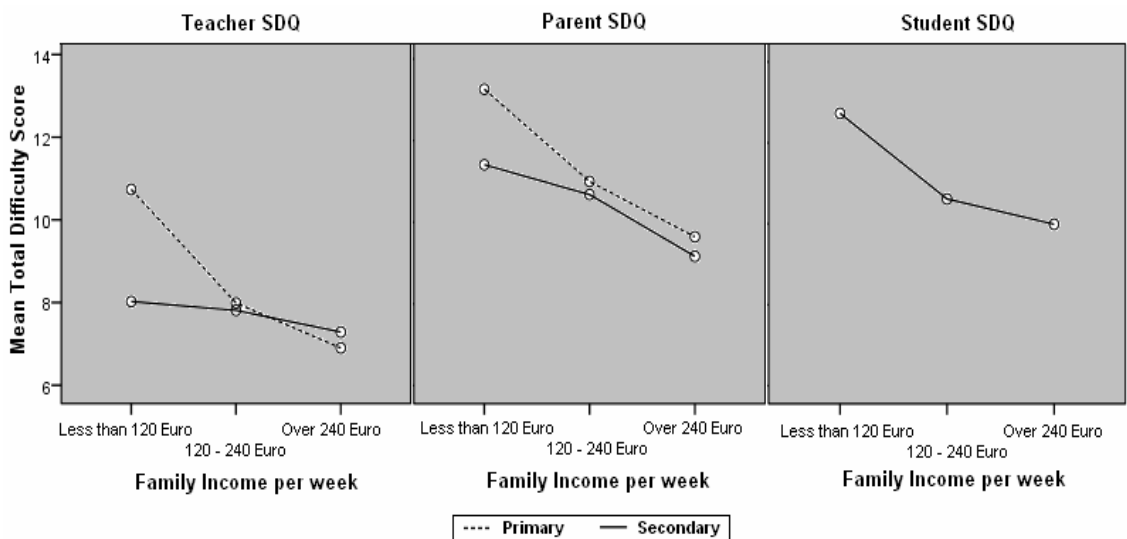


Figure 17 : Mean total difficulty scores by family income and school level

Regression analysis

To identify the most relevant predictors that explained the variations in the total difficulty scores, several Generalized Linear models (GLM) were fitted using the teacher, parent and student self report evaluations in both primary and secondary schools. A backward procedure was employed and the contribution of each predictor in the model fit was measured by the change in deviance. The GLM revealed eight dominant predictors which explained most of the variation in total difficulty score for primary teachers evaluations. Streaming was found to be the most significant predictor followed by school type, teacher qualification, family structure, attainment, assessment and residence ownership (Figure 18). Streamed primary students with support, who attend small-sized state schools, and who live with a single parent, in a rented house, have more difficulties. The five dominant predictors that explained a large proportion of the total difficulty score variation in primary parents evaluations were intervention, followed by mother occupation, attainment, attendance and child condition/ illness (Figure 18). Primary school children who have illness/health problems, have poor attainment, attend school irregularly, receive psychological and/or educational interventions, and live with mothers with low skilled jobs, have higher total difficulty scores.

The predictors varied somewhat in secondary school. The eight dominant teacher predictors were attainment followed by school size, family size, school region, classroom space, school environment, gender and communication (Figure 19). Male secondary school students with poor attainment and communication, who attend small-sized, unattractive schools in the Inner Harbour region, and living in a single child family, have significantly higher total difficulty scores. On the other hand, the four dominant parent predictors were attainment, followed by relatives living with family, family income and child diagnosis (Figure 19). According to parents, secondary students with poor attainment, who have a medical diagnosis and live in a family with relatives and low income, have more difficulties. Attainment and income were the two dominant predictors from the self report evaluations.

As one can see from Figures 18 and 19 there are relatively few predictors which are common to the three groups of respondents. Teachers in both primary and secondary schools underline school-related individual variables such as attainment, communication and assessment, and classroom and school variables. The predictors from the parent evaluations on the other hand, are more within-child individual variables, such as diagnosis and intervention, and home variables such as income, occupation and relatives. However, teacher, parent and student responses agree that attainment is one the strongest predictors of SEBD, in both primary and secondary school. Most of the significant predictors are

individual variables and most of these are related to school, such as attainment and communication. This is followed by the school and classroom variables such as streaming, space, and type of school (particularly teachers) and subsequently by home variables, such as family income, structure and residence ownership (parents).

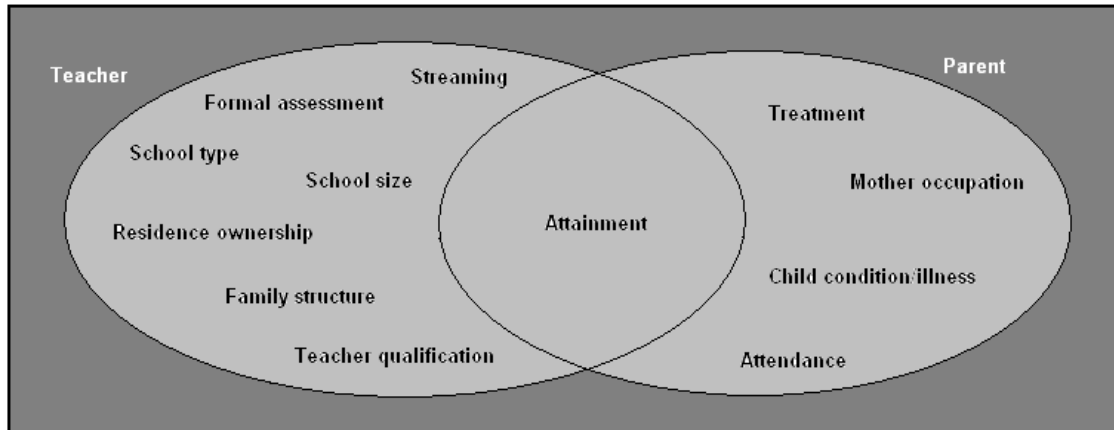


Figure 18 : Variables that best predict differences in SEBD in primary school

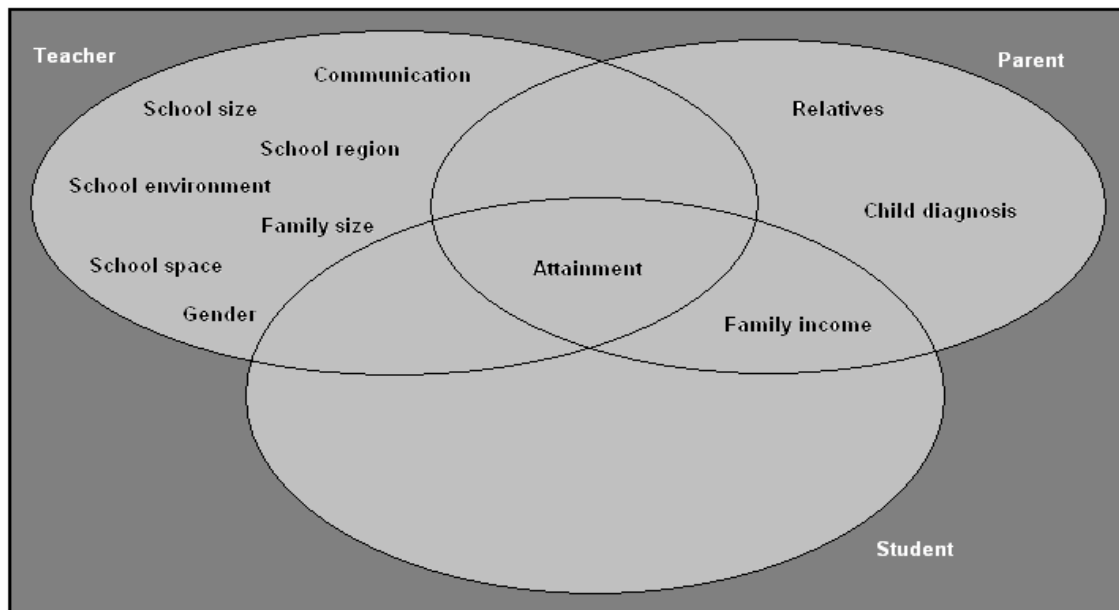


Figure 19: Variables that best predict differences in SEBD in secondary school

Discussion

Prevalence

The 9.7% prevalence rate of SEBD in Maltese schools is close to the 10% cut off point given by Robert Goodman (Goodman 1997) and other studies based on teacher perceptions, such as in Denmark (10%) (Egelund and Hansen 2000) and the Netherlands (11%) (Smeets *et al.* 2007). Kauffman (2004) provides a lower estimate of American students with serious behaviour difficulties (3% to 6%), but other diagnostic criteria besides teachers' perceptions have been used to arrive at these figures. This study suggests that local statistics are quite close to the international prevalence rates based on teacher perceptions, and that teacher responses strongly indicate that SEBD are a major issue of concern in Maltese schools.

Gender

In line with international trends, boys appear to exhibit higher levels of SEBD than girls, but the difference is less significant, with a local ratio of 7:6 in contrast to the 3:1 ratio usually cited in the international literature. Indeed, international data indicates that the level of behaviour difficulties amongst girls is increasing at a greater rate than among boys (Cooper 2006). As expected, boys have markedly more behaviour and conduct problems, while girls experience more emotional difficulties. The most frequent problem exhibited by students is hyperactivity, suggesting that a substantial proportion of students are restless and fidgety in the classroom and find it difficult to concentrate. Though this is a multifaceted phenomenon, the fact that the Maltese school system maintains many 'traditional features', such as large class sizes, highly academically oriented curriculum, and teacher-centered transmission approaches to teaching, may be a contributing factor to the students' high levels of restlessness in the classroom. Students may find it difficult to engage with a system which they may find rigid, academically oriented and with limited relevance to their daily lives (eg. Cefai and Cooper 2009).

Age and school level factors

In a recent study carried out by the World Health Organisation, only 16% of Maltese 13 year old boys and 27% of 13 year old girls said that they liked school, dropping from 30% and 50% respectively amongst 11 year olds (WHO 2008). This relates to the findings of the current study which identifies Forms 2 and 3 as having the lowest levels of student engagement and motivation, and to the high rate of absenteeism in Area Secondary schools, rising to 30% of unauthorized absences in some regions (Clarke

et al. 2005; NSO 2005; Commission of the European Communities 2006). While liking school is a protective factor for young persons' physical and socio-emotional health, dislike for school in turn has been associated with academic failure, school drop out and substance abuse (Resnick *et al.* 1997; Samdal *et al.* 2000; Maes and Lievens 2003). Engaging all students in the life of the school, building caring relationships with the students, providing a meaningful and engaging curriculum for all learners, and promoting positive and consistent behaviour management at school and classroom levels, are some of the processes which have been found to promote positive behaviour and engagement amongst students (Daniels, Cole and Reykebill 1999; Weare 2004; Cooper 2006; Cefai, 2007).

It is also evident that there is a need for preventative, early intervention work in the early primary school years. Staff in secondary schools frequently complain that they find it difficult to manage and change behaviour once it has become established due to lack of timely intervention earlier on in the life of the child. The prevalence rate in primary school, particularly amongst boys, is relatively high. This suggests that early intervention is necessary to support the healthy social and emotional development of children and prevent the escalation of emergent difficulties. .

Emotional Problems

Emotional problems are the second most prevalent type of difficulty found in the current study. While there are various factors leading to emotional problems in children and young persons, including normal developmental processes and family issues, there are indications that Maltese students are experiencing high levels of stress and low self esteem as a result of academic pressure, examinations, and lack of free time (Sollars 2006; WHO 2008). It is ironic for instance, that as stress builds up as the Maltese Junior Lyceum (11+) examinations are approaching, classroom teachers tend to reduce rather than increase PE lessons (Sollars 2006). A recent study exploring the views of students amongst 35 countries in Europe and North America, reported that school-related stress amongst Maltese female secondary students increased from 43% amongst 11 year olds, to 60% amongst 13 year olds, up to 69% amongst 15 year olds. At 11 and 13 year-old, Maltese girls are the most academically pressured students from all the 35 countries involved in the study (WHO 2008). At such a vulnerable age, female students may be achieving at the expense of their social and emotional health.

Peer relationships

Peer problems such as bullying, isolation and difficulties with peers are more frequent in secondary school, particularly amongst boys. This complements the WHO study (2008)'s finding that Maltese boys do not have many close friends: less than half of 11 year-olds reported that they had three or more friends from the same gender (the lowest from all the countries). Friendships are necessary for the psychosocial development of young adolescents, promoting their social skills, improving their self esteem, and supporting the process of identity development (Baumister and Leary 1996). In schools operating as caring communities where members feel respected, included and supported, it is less likely for students to become victims of bullying or end up isolated without any friends (Solomon et al. 2000; Cefai 2007). Having a clearly set out and evaluated anti-bullying policy, peer support schemes such as buddies for vulnerable students and peer counsellors, collaborative learning environments and regular Circle Time in the classroom, would help to inculcate a culture of respect, care, inclusion and equity, where diversity is celebrated, prosocial values and behaviour reinforced, and bullying discouraged and effectively managed.

Attainment, Curricula Flexibility and Streaming

Attainment is the strongest predictor of SEBD in Maltese schools, underlining the inextricable link between learning and behaviour difficulties. Indeed, compared with other students with individual educational needs, students with SEBD are more likely to have learning difficulties and problems in finishing their school successfully (Farrell, Critchley and Mills 2000; Groom and Rose 2004). The relationship between attainment and SEBD is likely to be reciprocal, but high academic pressure, examinations, and selection, the lack of access to the curriculum for some of the students, and the difficulty for some of the students to engage in a curriculum and pedagogy which is not perceived as meaningful and relevant, are some of the possible factors which might turn a learning problem into a behavioural one. Conversely, once students become actively engaged in the learning process, they are unlikely to become disaffected. Caring relationships, connective pedagogy and a meaningful, flexible curriculum adapted to students' educational needs, are key mechanisms underlining student engagement (Cefai 2008). In a recent report on cultural and recreational activities for school children in Malta, children mentioned that little importance is attached to such activities at school, with minimal presence of subjects such as art, drama, music and PE in an academic-oriented curriculum (Sollars 2006). In a study with students who attended a SEBD special school, the students expressed their appreciation at a student-centred, activity-based curriculum in contrast to an inaccessible curriculum in their previous

mainstream schools (Spiteri 2007). The principles of inclusive education underline the need for an engaging and meaningful curriculum suited to the diversity of learners in the classroom, with adequate and timely support for those experiencing difficulties in accessing the curriculum starting from the early primary years. This goodness of fit between the needs of the child and a flexible accommodating learning environment is critical to student engagement (Bartolo *et al.* 2007; Cefai and Cooper 2009).

The study also found that students in streamed classes, particularly those in the lower streams, exhibit the highest levels of social, emotional and behavioural difficulties. Most children with SEBD in primary school are found in the smaller, lower streamed classrooms, while at secondary level, most problems are in the Area Secondary schools, schools for low achieving students. This might be taken to suggest that selection by ability and streaming practices have the effect of combining and heightening learning and behavioural difficulties, which was first demonstrated by Hargreaves (1967). The quality of teaching, curriculum and learning support, might explain, at least in part, why students with learning difficulties appear to develop associated behaviour problems. It is well documented in previous studies that teachers often lower their academic and behavioural expectations for students in lower stream classrooms. Staff may also become reluctant to invest their effort and resources in such classes in a culture where they are measured according to the performance and achievement rates of students in examinations. For instance, this study suggests that a large proportion of the least qualified teachers are assigned to the lower streamed classes and Area Secondary schools, schools for students with low achievement levels. Putting high risk students together may actually reinforce challenging and anti-social behaviour, while successful interventions involve students with SEBD in relationships with prosocial peers and staff (Poulin *et al.* 2001). Universal design and differentiated teaching practices would help to address the differing educational needs of students without the negative effect of streaming (Bartolo *et al.* 2007).

Support for Students with SEBD

An interesting finding in the study is that students receiving some sort of support at school without having a Statement of individual educational needs, are more likely to exhibit SEBD than those with a Statement, or without a Statement but not receiving support. This is corroborated by another finding, namely that students receiving psychological or educational interventions are more at risk of exhibiting SEBD. In one way this is to be expected, since many of the students receiving support without a Statement may do so by dint of their challenging behaviour. On the other hand, the

number of such students should alert the educational authorities to the need for early identification and support for students with SEBD to prevent the exacerbation of these difficulties.

Another finding underlines the relationship between communication and SEBD, and the need for more emotional literacy support in schools to prevent the development of social, emotional and behaviour difficulties and promote more prosocial behaviour. Circle Time is a child-friendly, classroom based approach for the promotion of social and emotional literacy and prosocial behaviour amongst students. It may be used at both classroom and individual levels, supporting the whole group as well as particular students in developing socio-emotional competence conducive to learning and positive behaviour (Mosley 1993; Fletcher-Campbell and Wilkin 2003). 'Nurturing' educational approaches, such as Nurture Groups, underline the need for emotional attachment between adults and children as a strategy to help children develop social and emotional skills on the basis of trusting, caring and supportive relationships within a safe climate (Cooper and Tiknaz 2006). Nurture groups lead to an improvement in the behaviour and cognitive engagement of children with SEBD, and are a promising provision for young children with a wide range of such difficulties (Cooper and Whitebread 2007).

Teachers and SEBD

In Maltese schools, the less qualified a teacher is, the more likely he or she is to have students with SEBD in the classroom. Again this appears to be linked to the fact that such teachers are placed in schools such as Area Secondaries where there is a higher proportion of students with SEBD. Placing the least qualified teachers with the most difficult or vulnerable students, does not do justice either to the students or to the teachers themselves. It is also a recipe for heightening stress levels among both staff and students and is likely to contribute to early teacher burn out. This points to the conclusion that students with SEBD not only need well trained and confident teachers to help them overcome their difficulties and support them in their learning, but that the emotional well being of these staff members is of equal importance. This implies training in pupil and self management for teachers and other school staff.

School Type and School Effectiveness

As expected, more problems are found in state schools in contrast to church and independent schools at both primary and secondary levels. The surprising finding that smaller primary and secondary schools have more difficulties than larger ones is partly explained by school type, with the smaller

schools being state schools. It should be noted that mainstream state schools in Malta are taking increasing numbers of students with learning and behaviour difficulties, but with minimal additional training for teachers. Whilst school effectiveness research has consistently shown that schools can make a difference in the social and academic behaviour of students despite the baggage students may bring with them to school (Teddlie and Reynolds 2000; Muijs and Reynolds 2005), it is a mistake to assume that schools can absorb students with complex additional needs without this affecting the character and performance of the school. As one of the seminal pioneers of school effectiveness has argued, the most effective of schools can account for only a proportion of the variance in student outcomes (Mortimore 1998). Clearly, if schools are to maximize their effectiveness, then their capacity to deal with an increasingly diverse student intake must be enhanced, through training, external specialist support and policy development, in direct proportion to the specific needs expressed by students.

Clearly, the Maltese educational system needs to examine how it is addressing the educational needs of students, particularly those of students with low attainment and learning difficulties, such as the relevance of the curriculum for such students, the suitability of assessment modes, and the appropriateness of behaviour management approaches at school, classroom and individual levels. The data suggests that schools have a major influence on students' behaviour and that tackling such issues as streaming and selection, addressing learning, communication and other difficulties, providing more space and more attractive environments, and investing more in staff's professional development, is likely to lead to behaviour improvement. Furthermore, the social and emotional needs of staff must be acknowledged and supported. This means that in addition to developing management and mediation skills for use with students, staff also need the kinds of self management skills that engender emotional resilience in challenging and often stressful circumstances.

The Social Policy Context

There are also broader social policy implications to be drawn from this study. It was found, for example, that one-parent families are more likely to have children and young persons exhibiting SEBD than two-parent families. This does not only underline the need for strengthening the Maltese family, including education and parenting skills, flexible working time, financial assistance, and psychotherapeutic services for families in difficulties, but also to provide more support to single parent and separated families. Single parents, particularly young single parents, are at risk for socio-economic hardship, with half of such households living in poverty (NSO 2007; Deguara 2008). Family structure

and socio-economic status may thus interact in the development of SEBD, underlining the complexity of this social phenomenon. A recent EU report claims that the provision of child care facilities for young children in Malta is inadequate, placing Malta at the very bottom of the list amongst the EU countries (Commission of the European Communities 2008). Single parents may be constrained to make more use of such facilities, and they have indeed urged the government to increase state-funded, affordable childcare services (Camilleri-Cassar 2008).

Furthermore, in line with international research, socio-economic status is one of the strongest home-related variables related to SEBD in this study. The lower the family's SES, the greater the likelihood of SEBD among the children and young persons in the family. Families where one or both parents have semi- skilled or unskilled jobs and a low level of education, where the father is unemployed, whose income is relatively poor, and who are not home owners, are more at risk for SEBD. This would include single parents as mentioned above. Fifteen per cent of the population in Malta lives in poverty, while there are about 22% of children aged 0-15 years living in poor families, male boys being the most vulnerable (NSO 2007; Deguara 2008). Children and young people coming from such families are at high risk for SEBD, and unless supported, the cycle of poverty, social exclusion and marginalisation, will be repeated through succeeding generations. A transdisciplinary, multisystemic initiative providing social, economic, health and educational interventions would help to provide timely and effective support to those most in need. Such an approach is more likely to be effective in helping such families and children towards healthier trajectories, than piecemeal, fragmented provision and support (Cooper 2001; Henegler *et al.* 2002; Office of the Children's Commissioner 2006).

Conclusion

This paper has provided a portrait of students exhibiting SEBD in Maltese schools, and identified some of the key risk factors that contribute to this problem. We have shown that the most vulnerable children and young people would appear to be those who attend lower streamed classrooms in state schools with unattractive environments, with poor attainment and learning and communication difficulties; who receive psychological or educational interventions; who attend school irregularly, and who come from single-parent and/or economically deprived families. The greatest problems reside in the state schools, in contrast to church and independent schools. It is in state schools that we find the highest levels of learning difficulties, poor attainment, irregular attendance, communication difficulties, and low SES.

Such a portrait underlines the complexity and multi-factorial nature of SEBD, and the futility of taking simplistic, blaming approaches in trying to explain and address this phenomenon. The systemic model of behaviour underlines the dynamic relationship between the individual and the systems in his or her life, the interconnected and interdependent relationships between the various situational, interpersonal and intrapersonal factors that impact on students' behaviour and that of other members of the school community. It is also evident, however, that schools, particularly state schools where the most vulnerable children attend, have a key role to play in the prevention of SEBD from the very early years of primary education, with streaming, selection and learning difficulties being clear targets for immediate attention. Schools can make a difference in the lives of children and young persons as school effectiveness research and resilience literature have consistently shown (Teddlie and Reynolds 2000; Waxman, Padron and Chang 2003; Bernard 2004), but they do not operate in a vacuum and cannot, alone, compensate for the effects of wider social and economic inequalities. They can help to direct children's social, emotional and cognitive development towards more positive pathways, and play a vital role in supporting those who are encountering difficulties in their development. Their success in these endeavours, however, will only be maximized when the relationships between SEBD and wider social policy issues are acknowledged and acted upon. This calls for interagency and interprofessional work between the education, social welfare, and health divisions, to facilitate a comprehensive, cross-sector approach to the prevention and management of SEBD.

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Appendix

Table 2: Mean Total Difficulty scores for primary students (Individual variables)

Individual Variables	Teacher SDQs			Parent SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value
Gender						
Male	9.37	6.423	0.000*	11.17	5.628	0.103
Female	7.48	5.753		10.74	5.804	
Age						
Year 1	7.96	6.124	0.366	9.97	4.945	0.035*
Year 2	8.58	6.144		11.18	5.469	
Year 3	8.27	6.104		11.05	5.601	
Year 4	8.20	6.198		11.36	6.099	
Year 5	8.68	6.185		11.16	5.908	
Year 6	8.70	6.194		10.87	6.115	
Home Region						
Inner harbour	8.11	6.397	0.013*	11.60	5.526	0.088
Outer harbour	7.06	5.882		10.57	5.785	
South eastern	8.01	5.622		11.17	5.810	
Western	8.13	5.891		11.36	5.491	
Northern	7.83	6.133		10.57	5.830	
Gozo	9.21	6.436		10.55	5.799	
Home Language						
Maltese only	7.88	5.837	0.534	11.20	5.733	0.000*
English only	8.13	7.679		10.07	5.716	
Bilingual	7.46	6.310		9.81	5.597	
Ethnic Group						
Maltese	8.42	6.166	0.693	11.01	5.683	0.640
Other	8.12	6.188		10.60	5.902	
Religion						
Roman Catholic	8.36	6.134	0.925	10.93	5.698	0.927
Other	8.46	6.604		11.07	3.882	
Attendance						
Regular	8.21	6.107	0.000*	10.87	5.648	0.000*
Irregular	12.53	6.041		14.47	6.181	
Attainment						
Very good	5.42	4.648	0.000*	9.39	5.087	0.000*
Average	9.24	5.749		11.69	5.554	
Poor	13.99	5.985		14.79	5.984	
Communication						
Very good	6.45	5.369	0.000*	10.03	5.316	0.000*
Adequate	10.80	5.959		12.45	5.873	
Poor	14.72	5.731		14.10	6.069	
Formal Assessment						
Stated	9.57	6.552	0.000*	11.39	5.882	0.000*
Non stated	8.26	6.076		10.84	5.496	
Support	11.51	6.277		13.90	6.498	
Child Diagnosis						

Yes	10.63	6.023	0.000*	14.51	6.074	0.000*
No	7.42	5.925		10.44	5.528	
Child Condition/Illness						
Yes	8.17	6.225	0.326	12.31	6.205	0.000*
No	7.69	5.966		10.68	5.662	
Child Medication						
Yes	8.33	6.244	0.249	12.31	5.984	0.001*
No	7.71	5.994		10.71	5.680	
Child Intervention						
Yes	11.68	6.315	0.000*	15.12	5.696	0.000*
No	7.47	5.885		10.51	5.586	

* Significant at 0.05 level of significance

Table 3: Mean Total Difficulty scores for primary students (Classroom variables)

Classroom Variables	Teacher SDQs			Parent SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value
Classroom Size						
11 – 15	11.01	6.891	0.000*	13.06	6.430	0.000*
16 – 20	8.60	6.330		10.88	5.547	
21 – 25	7.87	6.013		10.66	5.536	
26 – 30	7.77	5.675		10.54	5.609	
Classroom Space						
Spacious	8.63	6.009	0.191	11.40	6.205	0.579
Average	8.75	6.303		11.03	5.560	
Limited	8.14	6.147		11.00	5.831	
Streaming						
Streamed	9.06	6.387	0.005*	11.27	5.826	0.218
Mixed ability	8.18	6.102		10.80	5.639	
Stream Level						
Top	7.68	5.782	0.000*	10.30	5.484	0.000*
Middle	8.72	5.526		10.96	5.801	
Low	11.15	7.375		14.05	6.044	
Teaching Experience						
Less than 5 years	8.74	6.177	0.095	11.00	5.750	0.912
6 - 10 years	8.03	6.036		10.72	5.469	
11 – 20 years	8.11	6.104		10.87	5.734	
More than 20 years	8.62	6.461		10.94	5.803	
Teacher Qualifications						
B Ed / PGCE	8.19	6.117	0.004*	10.79	5.717	0.086
College Certificate	8.32	6.300		11.37	5.772	
Diploma	8.84	6.705		10.30	4.544	
Pedagogical Course	9.41	6.116		11.19	5.615	

* Significant at 0.05 level of significance

Table 4: Mean Total Difficulty scores for primary students (School variables)

School Variables	Teacher SDQs			Parent SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value
School Region						
Inner harbour	8.62	6.243	0.015*	11.53	5.579	0.000*
Outer harbour	7.75	6.249		10.14	5.635	
South eastern	8.79	5.890		11.46	5.941	
Western	8.11	5.838		11.71	5.684	
Northern	8.58	6.326		10.44	5.727	
Gozo	9.19	6.039		10.68	5.775	
School Type						
State	8.81	6.244	0.000*	11.47	5.866	0.000*
Church	8.13	5.776		10.70	5.666	
Independent	6.92	6.182		9.26	4.896	
School Size						
100 - 300	9.46	6.354	0.002*	11.98	5.959	0.002*
301 - 500	8.32	6.206		10.88	5.688	
501 - 700	8.11	5.872		10.49	5.685	
701 - 1000	8.62	6.948		12.10	5.247	
School Environment						
Attractive	8.57	6.173	0.037*	11.10	5.708	0.851
Needs improvement	8.23	6.090		11.21	6.072	
Unattractive	10.04	7.021		10.78	5.706	
School Space						
Spacious	8.72	6.274	0.111	11.33	5.855	0.228
Average	8.59	6.054		10.76	5.596	
Limited	7.73	6.299		11.05	5.902	
School Play Space						
Spacious	8.91	6.370	0.067	11.45	5.966	0.094
Average	8.19	6.036		10.72	5.590	
Limited	8.59	6.150		11.09	5.649	

* Significant at 0.05 level of significance

Table 5: Mean Total Difficulty scores for primary students (Home variables)

Home Variables	Teacher SDQs			Parent SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value
Residence type						
Flat	7.70	5.816	0.599	11.19	5.813	0.017*
Maisonette	7.82	6.023		11.13	5.762	
House	7.92	6.090		10.88	5.685	
Villa	6.49	5.355		8.72	4.929	
Residence Ownership						
Owned	7.56	5.828	0.001*	10.67	5.681	0.000*
Rented	9.39	6.895		12.81	5.716	
Residence Space						

1 bedroom	9.54	7.125	0.110	12.91	5.855	0.004*
2 bedrooms	8.44	6.523		11.72	6.120	
3 bedrooms	7.72	5.843		10.85	5.581	
At least 4 bedrooms	7.24	5.986		10.14	5.929	
Family structure						
Two parent	7.59	5.843	0.000*	10.67	5.631	0.000*
One parent	10.24	7.154		13.67	6.160	
One Parent						
Deceased	5.73	4.777	0.067	11.85	4.845	0.565
Separated/Divorced	10.34	6.842		13.55	6.627	
Single	11.47	8.207		13.97	5.451	
Relatives						
No Relatives	8.05	5.947	0.232	11.19	5.837	0.001*
There are relatives	8.93	6.422		13.27	5.642	
Family Size						
1 child	8.65	6.250	0.033*	11.40	5.593	0.243
2-3 children	7.60	5.954		10.81	5.711	
At least 4 children	7.74	5.764		10.92	6.148	
Father Occupation						
Professional/Managerial	7.20	5.816	0.004*	10.09	5.617	0.001*
Technical/Clerical	7.61	5.682		10.88	5.695	
Skilled/Semi skilled	7.85	5.783		11.11	5.554	
State Income	10.42	7.992		12.38	5.634	
Mother Occupation						
Professional/Managerial	6.85	5.210	0.040*	9.56	5.309	0.000*
Technical/Clerical	7.75	6.130		10.51	5.347	
Skilled/Semi skilled	8.36	6.349		11.75	5.917	
House Carer	7.91	6.059		11.19	5.806	
Father Education						
Primary	8.45	6.935	0.001*	11.83	5.603	0.000*
Secondary	8.20	5.958		11.47	5.618	
Post secondary	7.11	5.644		10.45	5.817	
Tertiary	6.70	5.738		8.83	4.726	
Mother Education						
Primary	9.26	6.753	0.030*	11.67	5.747	0.000*
Secondary	8.06	5.997		11.42	5.693	
Post secondary	7.58	6.010		10.71	5.905	
Tertiary	6.84	5.733		8.63	4.929	
Family Income						
Less than 120 Euro	10.74	7.519	0.000*	13.53	6.471	0.000*
120 – 240 Euro	7.99	5.970		11.27	5.514	
Over 240 Euro	6.90	5.463		9.91	5.542	

* Significant at 0.05 level of significance

Table 6: Mean Total Difficulty scores for secondary students (Individual variables)

Individual Variables	Teacher SDQs			Parent SDQs			Self-Report SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value	Mean	St Dev	P-value
Gender									
Male	9.82	6.457	0.000*	10.24	5.657	0.629	11.33	5.003	0.015*
Female	8.21	6.341		10.40	5.382		10.68	4.661	
Age									
Form 1	9.00	6.367	0.646	10.52	5.491	0.178	11.15	5.232	0.477
Form 2	9.48	6.719		10.94	5.439		10.95	5.033	
Form 3	9.07	6.250		9.84	5.181		11.20	4.401	
Form 4	9.03	6.534		10.01	5.770		10.56	4.612	
Form 5	8.82	6.433		10.24	5.677		11.25	4.780	
Home Region									
Inner harbour	8.07	6.143	0.086	10.85	5.837	0.832	11.44	5.109	0.139
Outer harbour	7.58	4.999		10.10	5.303		10.07	4.538	
South eastern	6.90	5.947		10.52	5.668		11.14	5.287	
Western	7.02	5.564		10.35	5.553		10.30	5.109	
Northern	7.66	6.814		10.40	5.476		10.57	4.651	
Gozo	9.04	6.440		10.18	5.732		9.80	4.903	
Home Language									
Maltese only	7.59	5.923	0.666	10.49	5.438	0.138	10.45	4.795	0.634
English only	7.00	5.573		10.53	6.127		11.23	6.286	
Bilingual	7.95	6.060		9.56	5.843		10.71	5.061	
Ethnic Group									
Maltese	8.98	6.418	0.044*	10.28	5.598	0.527	10.95	4.765	0.363
Other	11.00	8.033		9.25	6.312		11.90	5.691	
Religion									
Roman Catholic	8.96	6.406	0.069	10.27	5.580	0.457	10.97	4.760	0.564
Other	11.27	8.526		11.67	7.467		11.71	5.941	
Attendance									
Regular	8.43	6.181	0.000*	10.22	5.588	0.086	10.94	4.815	0.148
Irregular	14.42	6.341		11.76	5.995		11.76	4.427	
Attainment									
Very good	4.93	4.093	0.000*	8.76	5.407	0.000*	9.43	4.569	0.000*
Average	8.95	5.527		10.56	5.161		11.01	4.442	
Poor	15.15	6.607		13.17	6.275		13.33	5.072	
Communication									
Very good	6.22	5.015	0.000*	9.19	5.386	0.000*	10.22	4.638	0.000*
Adequate	10.50	6.132		11.23	5.595		11.24	4.731	
Poor	15.78	6.925		12.66	5.858		13.14	5.005	
Formal Assessment									
Statemented	8.92	6.026	0.000*	10.32	5.585	0.054	11.00	4.785	0.073
Non statemented	8.77	6.386		10.01	5.477		10.78	4.793	
Support	14.63	8.321		12.91	7.097		12.65	5.964	
Child Diagnosis									
Yes	9.61	6.827	0.000*	12.59	6.335	0.000*	11.98	5.349	0.004*
No	7.34	5.771		10.10	5.355		10.34	4.811	

Child Condition/Illness									
Yes	8.01	6.193	0.548	10.88	5.823	0.300	10.61	4.513	0.842
No	7.57	5.920		10.29	5.430		10.48	4.951	
Child Medication									
Yes	9.48	7.695	0.150	11.97	6.342	0.010*	11.21	4.799	0.273
No	7.54	5.825		10.27	5.438		10.44	4.913	
Child Intervention									
Yes	12.33	5.791	0.000*	13.76	6.805	0.000*	13.79	5.572	0.001*
No	7.49	5.934		10.26	5.438		10.40	4.886	

* Significant at 0.05 level of significance

Table 7: Mean Total Difficulty scores for secondary students (Classroom variables)

Classroom Variables	Teacher SDQs			Parent SDQs			Self-Report SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value	Mean	St Dev	P-value
Classroom size									
11 – 15	11.95	7.910	0.000*	10.50	5.722	0.376	11.67	5.317	0.155
16 – 20	10.78	6.926		11.19	6.300		11.60	4.845	
21 – 25	8.47	6.053		10.24	5.463		10.98	4.639	
26 – 30	8.50	6.220		10.09	5.652		10.69	4.816	
Classroom Space									
Spacious	7.78	6.055	0.000*	9.41	5.632	0.000*	10.39	4.981	0.003*
Average	9.92	6.747		11.00	5.533		11.64	4.772	
Limited	9.14	6.079		10.64	5.223		11.25	4.781	
Streaming									
Streamed	9.44	6.838	0.002*	10.79	5.176	0.454	11.16	4.872	0.935
Set for subject	8.19	5.679		10.22	5.171		11.00	4.375	
Mixed ability	9.32	6.647		10.19	5.928		11.04	4.901	
Stream Level									
Top	7.71	5.636	0.000*	10.46	5.352	0.266	10.76	4.358	0.179
Middle	8.04	5.801		10.38	5.141		11.13	4.886	
Low	12.69	7.443		11.68	5.938		12.01	5.223	
Teaching Experience									
Less than 5 years	9.71	6.729	0.028*	10.51	5.767	0.231	11.03	4.725	0.923
6 - 10 years	8.66	6.126		10.17	5.760		11.11	4.753	
11 – 20 years	9.15	6.887		9.94	5.752		10.99	4.940	
More than 20 years	9.15	6.080		11.16	4.812		11.31	4.774	
Teacher Qualifications									
B Ed / PGCE	8.87	6.357	0.000*	10.25	5.754	0.382	10.95	4.675	0.032*
College Certificate	8.93	6.609		10.06	5.209		11.28	5.013	
Diploma	10.34	7.588		11.76	5.328		11.38	5.555	
Pedagogical Course	11.66	6.906		11.48	5.379		12.22	5.144	

* Significant at 0.05 level of significance

Table 8: Mean Total Difficulty scores for secondary students (School variables)

School Variables	Teacher SDQs			Parent SDQs			Self-Report SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value	Mean	St Dev	P-value
School Region									
Inner harbour	9.38	6.646	0.000*	10.35	5.497	0.887	11.35	5.197	0.069
Outer harbour	8.32	5.957		10.13	5.263		11.08	4.576	
South eastern	5.33	4.618		10.17	5.058		11.03	4.398	
Western	8.92	6.016		10.49	5.435		10.87	4.906	
Northern	9.92	7.480		10.98	6.965		10.81	4.408	
Gozo	10.22	6.383		10.29	5.632		9.87	4.729	
School Type									
Area Secondary	11.82	6.770	0.000*	12.13	5.387	0.000*	12.01	4.739	0.000*
Junior Lyceum	8.00	6.017		10.31	5.212		10.45	4.526	
Church	7.54	5.744		9.60	5.654		9.56	4.806	
Independent	8.41	6.090		9.27	5.787		10.53	5.875	
School Size									
100 - 300	9.54	6.654	0.000*	10.28	5.649	0.124	11.65	4.988	0.001*
301 - 500	9.72	6.564		10.68	5.803		11.82	5.038	
501 - 700	8.65	6.065		9.52	5.592		10.31	4.759	
701 - 1000	7.88	6.182		10.26	4.944		10.74	4.566	
Over 1000	8.26	6.137		10.78	5.306		10.49	4.296	
School Environment									
Attractive	7.72	5.927	0.000*	9.79	5.357	0.000*	10.38	4.804	0.000*
Needs improvement	10.88	6.543		11.55	5.679		12.36	4.799	
Unattractive	10.85	6.596		11.92	5.522		11.81	4.684	
School Space									
Spacious	8.71	6.390	0.000*	10.16	5.505	0.222	10.76	4.864	0.001*
Average	8.32	5.988		10.07	5.415		11.22	4.622	
Limited	10.31	6.592		10.94	5.475		12.26	4.999	
School Play Space									
Spacious	8.36	6.299	0.000*	9.90	5.438	0.049*	10.66	4.901	0.000*
Average	9.04	6.076		10.66	5.683		10.90	4.788	
Limited	10.35	6.815		10.90	5.393		12.55	4.630	

* Significant at 0.05 level of significance

Table 9: Mean Total Difficulty scores for secondary students (Home variables)

Home Variables	Teacher SDQs			Parent SDQs			Self-Report SDQs		
	Mean	St Dev	P-value	Mean	St Dev	P-value	Mean	St Dev	P-value
Residence type									
Flat	8.01	6.004	0.869	11.33	5.798	0.018*	11.18	5.159	0.120
Maisonette	7.63	5.828		10.75	5.478		10.96	4.793	
House	7.62	5.960		10.16	5.447		10.16	4.699	
Villa	6.94	5.532		9.37	5.377		9.62	5.539	
Residence Ownership									
Owned	7.54	5.926	0.168	10.24	5.492	0.011*	10.34	4.804	0.004*
Rented	8.33	5.935		11.82	5.658		12.15	5.478	
Residence Space									
1 bedroom	7.12	5.515	0.666	12.00	4.811	0.456	11.17	7.333	0.147
2 bedrooms	7.85	5.311		10.92	5.774		11.55	5.237	
3 bedrooms	7.47	5.969		10.29	5.570		10.36	4.755	
At least 4 bedrooms	8.09	6.283		10.22	5.127		10.31	4.968	
Family structure									
Two parent	7.53	5.868	0.264	10.23	5.463	0.001*	10.35	4.831	0.001*
One parent	8.35	6.578		12.22	5.961		12.64	5.318	
One Parent									
Deceased	10.45	5.558	0.212	13.16	5.650	0.806	11.00	5.114	0.153
Separated/Divorced	8.53	6.519		12.35	5.897		13.17	4.997	
Single	14.67	13.317		13.75	7.632		16.50	6.658	
Relatives									
No Relatives	7.62	5.930	0.926	10.23	5.482	0.001*	10.47	4.843	0.470
There are relatives	7.69	6.029		12.37	5.851		10.98	5.624	
Family Size									
1 child	9.28	7.327	0.005*	10.99	6.252	0.136	11.24	5.620	0.010*
2-3 children	7.29	5.596		10.19	5.430		10.21	4.698	
At least 4 children	7.98	6.202		10.93	5.367		11.63	5.097	
Father Occupation									
Professional	7.10	5.700	0.052	9.26	5.395	0.000*	9.27	4.889	0.022*
Technical/Clerical	6.89	5.317		10.06	5.674		9.29	4.624	
Skilled/Semi skilled	8.13	6.126		10.88	5.443		10.80	4.729	
State Income	8.16	5.288		11.71	5.810		10.83	5.296	

Mother Occupation									
Professional	6.54	6.579	0.089	9.53	5.662	0.010*	9.78	5.028	0.485
Technical/Clerical	6.53	5.848		9.00	5.308		9.77	4.865	
Skilled/Semi skilled	8.00	5.734		10.85	5.511		11.13	5.113	
House Carer	7.39	5.669		10.57	5.487		10.51	4.829	
Father Education									
Primary	8.23	6.952	0.156	11.89	5.424	0.000*	12.11	4.666	0.008*
Secondary	7.78	5.920		10.63	5.436		10.44	4.852	
Post secondary	7.26	5.872		9.96	5.636		9.97	4.820	
Tertiary	6.59	5.076		8.84	5.535		9.82	4.859	
Mother Education									
Primary	8.20	7.384	0.160	11.53	4.854	0.000*	12.02	5.924	0.027*
Secondary	7.82	5.717		10.73	5.424		10.61	4.692	
Post secondary	6.73	5.565		9.30	5.491		9.72	4.877	
Tertiary	7.09	6.190		9.21	5.989		9.70	5.374	
Family Income									
Less than 120 Euro	8.02	6.010	0.365	11.68	5.138	0.000*	12.73	5.136	0.000*
120 – 240 Euro	7.81	5.686		10.95	5.405		10.61	4.804	
Over 240 Euro	7.29	6.028		9.44	5.645		9.99	4.757	

* Significant at 0.05 level of significance